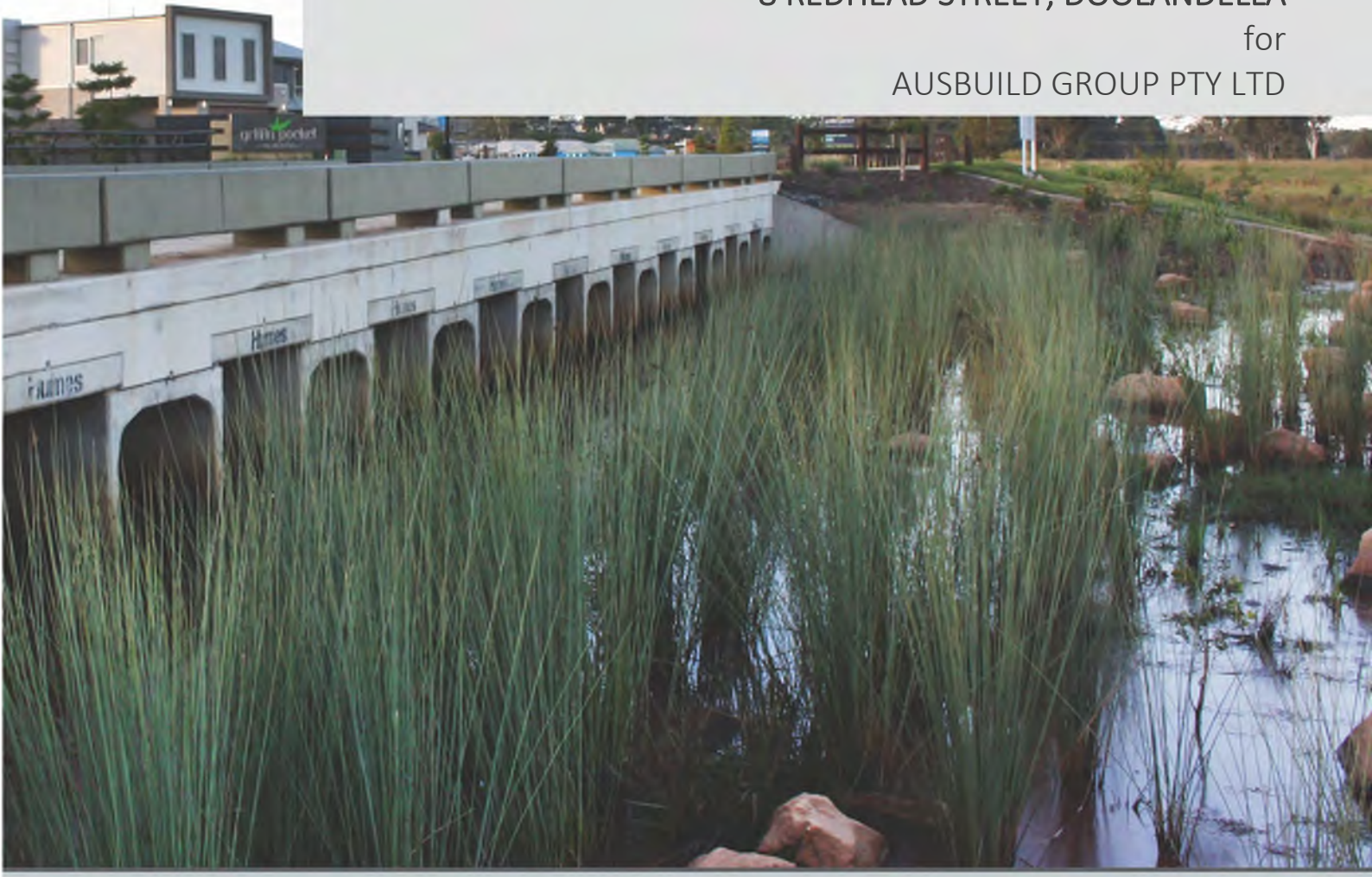
JFP URBAN CONSULTANTS

SITE BASED STORMWATER MANAGEMENT PLAN

Revision B

Proposed Development at
8 REDHEAD STREET, DOOLANDELLA
for
AUSBUILD GROUP PTY LTD



SITE BASED STORMWATER MANAGEMENT PLAN

Proposed Development at
8 REDHEAD STREET, DOOLANDELLA
for
AUSBUILD GROUP PTY LTD

B4687EA2_DA3_SBSMP-Revision B
November 2025

JFP Urban Consultants Pty Ltd
Prepared by: C. Blair
Approved by: T. McKinney

Revision	Date	Details	Prepared By	Approved By
A	5/8/2025	Original Issue	CB (RPEQ 19190)	TMcK (RPEQ 5087)
B	25/11/2025	Information Request Response	 CB (RPEQ 19190)	TMcK (RPEQ 5087)

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LIST OF APPENDICES

1. INTRODUCTION

JFP Urban Consultants Pty Ltd has been commissioned by Ausbuild Group Pty Ltd to compile this *Site Based Stormwater Management Plan* ("SBSMP") for the proposed residential subdivision at 8 Redhead Street, Doolandella ("the site"). Council application reference is A006835638.

Originally a combined bioretention & detention basin was proposed prior to discharge at the south-western corner of the site via a level spreader. Council's *Information Request* dated 15th September 2025 however raised concerns regarding the stormwater discharge proposal, excerpt shown below.

Stormwater

1. The stormwater discharge proposal including the detention basin as currently proposed will direct flows into adjoining properties which are not public land nor are they covered by an existing stormwater drainage easement.

   Further to this, the flows from the development pass across a large extent of the southern boundary and are concentrated into a 9m long level spreader and as such the flows per unit length at the discharge location would be significantly higher than existing conditions.

   The proposal does not demonstrate that it can mitigate nuisance to adjoining properties and as a result does not currently demonstrate an appropriate lawful point of discharge.

   a. Provide an amended stormwater discharge proposal designed to mitigate actionable nuisances to adjoining properties in accordance with AO3 / PO3 of the Stormwater code and Chapter 7 of the Infrastructure design code. The Stormwater arrangement is to be considered in conjunction with the structure planning requirements of the Structure planning scheme policy.

Figure 1 – Item 1 of the Information Request dated 15/09/2025 (A006835638)

Several alternative strategies were investigated. In the absence of downslope owner consent to construct the necessary stormwater infrastructure, it is now proposed to convey roofwater via a new 600Ø RCP at 0.5% grade (subject to detail design) along Redhead Street and discharge into the waterway corridor at the existing headwall location (either via the existing or a new headwall). The major surface runoff will continue to flow south across the rear site boundary as broad sheet flow. Refer to Figure 2 on the next page for the schematic and Appendix B for the preliminary engineering design plans.

A stormwater basin is not feasible with this revised stormwater discharge strategy due to level constraints and so the previously proposed basin has been removed.

The revised stormwater discharge strategy along with a summary of the hydraulic analysis was submitted to Brisbane City Council ("BCC" or "Council") in October 2025. The hydraulic results indicated minor increases in flood levels, in the order of 10 - 20mm, which are not considered to be adverse let alone perceivable. Subsequently, a meeting was held on the 23rd of October 2025 where Council confirmed their support in principle for the stormwater proposal, including the minor flood level increases. This revised SBSMP (revision B) seek to formalise revised stormwater discharge strategy and document the details of the hydraulic assessment.

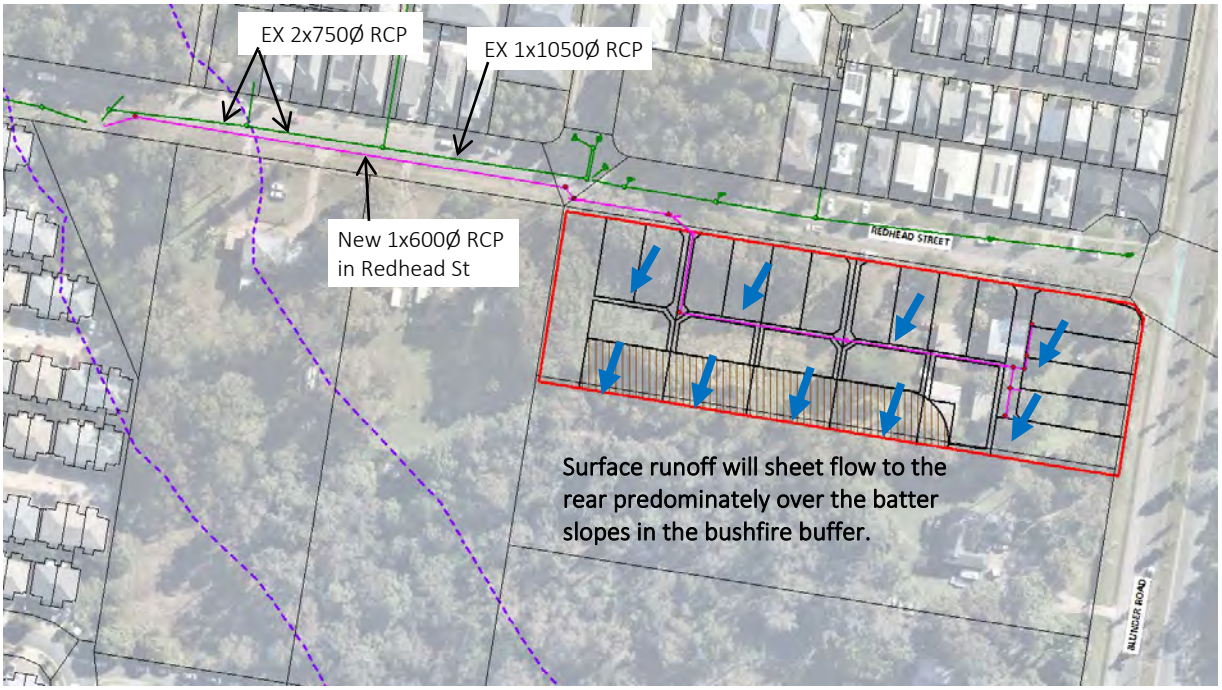

Figure 2 – Revised Stormwater Discharge Strategy (Schematic)

[redacted]

2. SITE CHARACTERISTICS

2.1 LOCATION

The site is 1.02ha in size and it is in the BCC local government area. The real property description is Lot 72 on RP88590. The site fronts Redhead Street to the north and Blunder Road to the east.

2.2 EXISTING LAND USE

Currently there is a single residential dwelling fronting Redhead Street. It will be demolished to make way for the subdivision.

2.3 FLOODING

The site is not identified to be affected by any form of flooding or tidal influence.

2.4 EXISTING TOPOGRAPHY & DRAINAGE

The site naturally slopes to the south-west at a grade of approximately 5%. Under existing conditions, site runoff ultimately drains into a mapped waterway corridor. Refer to Figure 3.

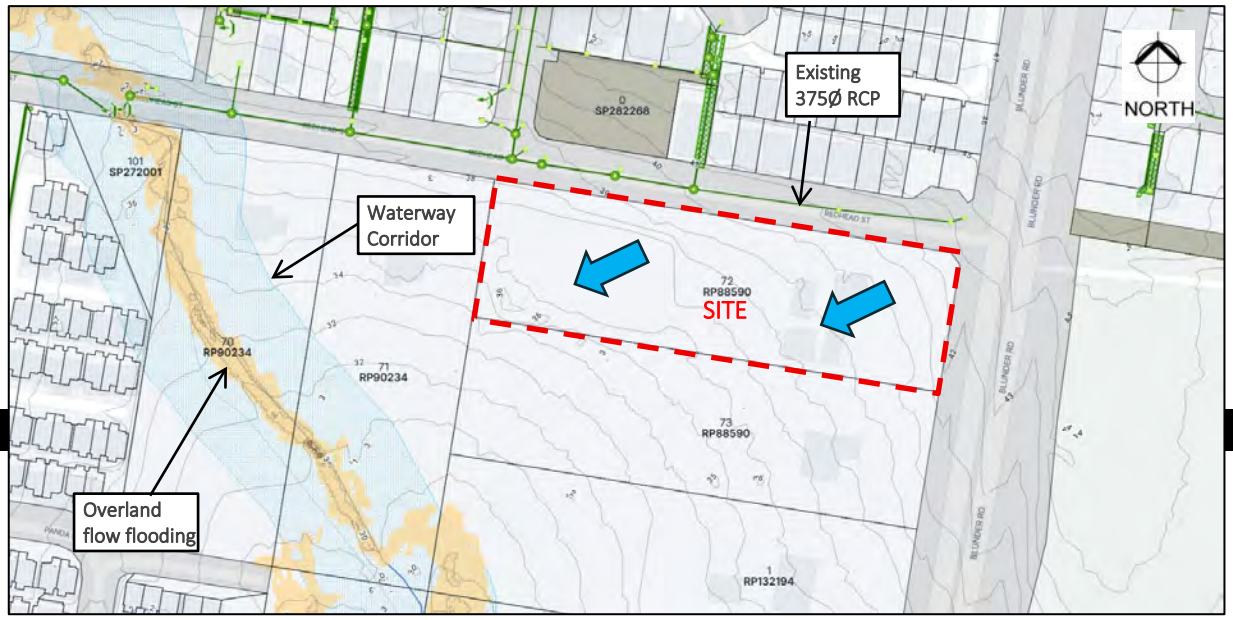

Figure 3 – Existing Drainage & Contours

3. STORMWATER QUANTITY

The previous site-based stormwater quantity / peak flow analysis has been replaced with a catchment wide 1D-2D hydraulic analysis of the drainage in Redhead Street and the waterway corridor downslope. The revised analysis has been undertaken using XP-STORM version 2024.2 software with peak flow rates verified against the Rational Method at a selected catchment.

3.1 LAWFUL POINTS OF DISCHARGE

As mentioned in the *Introduction,* the proposed lawful point of discharge ("LPD") is Redhead Street and the downslope waterway corridor. The proposal involves conveying roofwater via a new 600Ø RCP at 0.5% grade (subject to detail design) along Redhead Street and discharging into the waterway corridor at the existing headwall location either via the existing or a new headwall. Refer to preliminary engineering design plans in Appendix B. On-site detention is not proposed.

Surface runoff in major storm events will flow south across the rear site boundary as broad sheet flow. The grass covered batters in the bushfire buffer zones will assist to reduce the flow velocities and provide erosion control.

3.2 XP-STORM MODEL SET UP

3.2.1 HYDROLOGY

3.2.1.1 CATCHMENT DATA

Refer to Drawing No. B4687EA1_DA3_SK01 and SK02 in Appendix B for the catchment data. The catchments incorporate recent approvals at 74 Redhead Street (A006305517) and 58 Redhead Street (A006619783).

3.2.1.2 INITIAL & CONTINUING LOSSES

The following initial loss, continuous loss and Manning's n values have been adopted for the hydrological modelling.

Table 1 – Initial & Continuing Losses

AEP	Impervious Areas			Pervious Areas		
	Initial Loss (mm)	Continuing Loss(mm/hr)	Manning's n	Initial Loss (mm)	Continuing Loss(mm/hr)	Manning's n
63%	1	0	0.014	30	2.5	0.03
39%						
18%						
10%						
5%						
2%	1	0	0.04	15	2.5	0.03
1%						

3.2.1.3 BX FACTOR

A Bx factor of 2.0 was applied across all AEPs and model scenarios.

3.2.1.4 RAINFALL DATA

Inflow hydrographs were generated using 1987 rainfall IFDs (*Table 7.2.2.2.A, Chapter 7, SC6.16 Infrastructure Design PSP*) combined with *ARR* 1987 temporal patterns for Zone 3.

3.2.1.5 PEAK FLOW VERIFICATION

Peak flow verification has been undertaken for Catchment "M" as this is the biggest catchment, and it doesn't have an existing detention basin. Table 2 presents the comparison of the XP-STORM peak flow rates and the Rational Method peak flow rates (Appendix C).

Table 2 – XP-STORM Inflow Verification

AEP	Catchment M			
	Rational Method (m^3/s)	XP-STORM (m^3/s)	Difference (m^3/s)	Difference (%)
63%	0.54	0.80	+0.26	47%
39%	0.75	1.03	+0.28	38%
18%	1.07	1.34	+0.27	25%
10%	1.28	1.54	+0.26	20%
5%	1.55	1.81	+0.26	16%
2%	2.01	2.02	+0.01	0%
1%	2.28	2.30	+0.02	1%

The results indicate similar peak flows are achieved by XP-STORM and the Rational Method for the major storm events but not the smaller storm events. Given the similarities between the major storm peak flow rates the XP-STORM hydrology set up is considered acceptable for the current analysis.

3.2.2 HYDRAULIC SET UP

3.2.2.1 2D TOPOGRAPHY & GRID

A 1m x 1m 2D grid and a 0.5 second modelling time step has been created using the following Digital Terrain Models (DTMs):

- 2019 1m lidar, which formed the base DTM;
- As-constructed survey for Grove Street;
- As-constructed survey for the recent development at 83 & 91 Redhead Street (A005317777); and
- Detailed survey for the site and Redhead Street frontage, undertaken by JFP Urban Consultants.

3.2.2.2 2D MANNING'S ROUGHNESS

Land use mapping polygons defined surface types within the 2D model. A default Manning's n value of 0.04 was applied, with denser vegetation in the waterway corridor modelled at 0.1. Refer to Figure 4.

3.2.2.3 1D ELEMENTS

Pipe and culvert infrastructure was represented using 1D links and nodes with Manning's n value of 0.013. Pipe attributes— including length, diameter, and invert levels—were sourced from field survey, as-constructed plans, approved design plans, and BCC Community Maps. The following hydraulic loss parameters were adopted:

- Pressure Change Coefficients Ku = 1.5, and B = 1.0.
- Culvert Entry Loss = 0.5 and Exit Loss = 1.0.

3.2.2.4 EXISTING DETENTION BASINS

Three (3) upslope detention basins have been modelled. Refer to the catchment plans in **Appendix B** for their locations.

- **Detention Basin 1:** Modelled in 2D using the as-constructed DTM, with outlet structures represented by 1D links and nodes based on as-constructed plans (included in **Appendix I**).
- **Detention Basin 2:** Modelled in 1D using stage vs area storage, and stage vs discharge rating curves derived from approved documents sourced via PD Online (included in **Appendix J**).
- **Detention Tank 3:** An approved underground tank located at 74 Redhead Street (A006305517), modelled using a 1D storage node, generally in accordance with the approved SBSMP.

3.2.2.5 DOWNSTREAM BOUNDARY CONDITIONS

Water Height vs Time (H-T) line was adopted to simulate "free draining" conditions. Refer to **Figure 4**.

3.2.2.6 XP-STORM LAYOUT

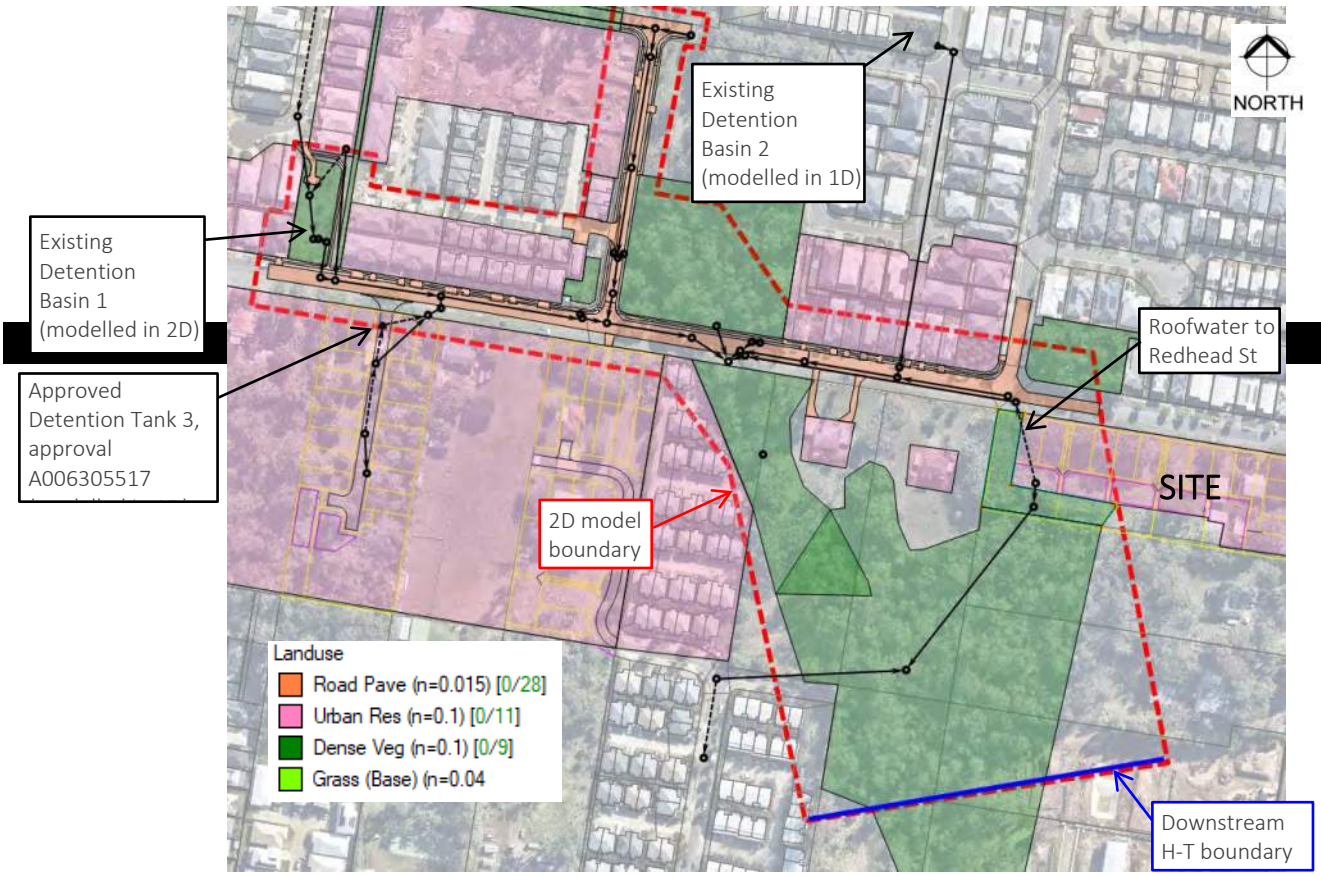

Figure 4 – XP-STORM Layout (Post-Development Scenario)

3.2.3 RESULTS

Peak flow rates were measured at “Line 1” and “Line 4” shown below.

Figure 5 – Peak Flow Locations

Table 3 – Peak Flow Rates at Line 1

AEP	Pre-Development		Post-Development		Difference (m^3/s)
	Peak Flow (m^3/s)	Critical Duration (mins)	Peak Flow (m^3/s)	Critical Duration (mins)	
63%	2.59	25	2.75	25	0.16
39%	3.26	25	3.48	25	0.22
18%	4.39	25	4.65	25	0.26
10%	5.26	25	5.56	25	0.30
5%	6.23	25	6.52	25	0.29
2%	7.21	60	7.51	60	0.30
1%	8.00	60	8.29	60	0.29

Table 4 – Peak Flow Rates at Line 4

AEP	Pre-Development		Post-Development		Difference (m^3/s)
	Peak Flow (m^3/s)	Critical Duration (mins)	Peak Flow (m^3/s)	Critical Duration (mins)	
63%	2.59	25	2.74	25	0.15
39%	3.22	25	3.42	25	0.20
18%	4.19	25	4.44	25	0.25
10%	4.88	25	5.14	25	0.26
5%	6.05	25	6.28	25	0.23
2%	8.10	60	8.21	60	0.11
1%	9.30	60	9.36	60	0.06

An increase in peak flow rates at Line 1 (at the headwall) is anticipated, as 8 Redhead Street does not currently discharge stormwater to this location under pre-development conditions. On-site detention was considered to reduce this increases; however, it is not possible due to level constraints.

Peak flow rates across the rear site boundary have reduced in magnitude, as can be seen from the results below. The reduced flow rates will not be concentrated at any one location as they will follow the surface topography of the grass covered batters in the bushfire buffer zones. The grass cover will assist to reduce flow velocities and limit erosion.

Table 5 – Peak Flow Rates Across Rear Site Boundary

AEP	Pre-Development		Post-Development		Difference (m^3/s)
	Peak Flow (m^3/s)	Critical Duration (mins)	Peak Flow [A] (m^3/s)	Critical Duration (mins)	
63%	0.04	120	0.02	120	-0.02
39%	0.08	90	0.05	90	-0.04
18%	0.15	90	0.09	90	-0.07
10%	0.20	60	0.12	60	-0.09
5%	0.29	90	0.17	90	-0.12
2%	0.42	60	0.28	60	-0.14
1%	0.50	60	0.38	60	-0.12

[A] up to 300L/s ($0.3m^3/s$) roofwater diverted to Redhead Street

Appendix G presents flood impact plans which illustrate some 10-20mm flood level increases in the waterway corridor. This is minor and located in already flood affected waterway corridor. It does not adversely affect existing residences nor alter the development potential of the land. Flooding on Redhead Street is also not adversely impacted. Road flood depths remain below 300mm and trafficable in all storm events modelled. Council acceptance is sought for the minor increases, given the negligible nature of the impacts.

4. STORMWATER QUALITY

4.1 CONSTRUCTION PHASE STORMWATER QUALITY MANAGEMENT

4.1.1 POLLUTANTS

Typical pollutants expected to be generated during the construction phase of an urban development are shown in Table 6. These are based on *Table C4.1* BCC's *Subdivision & Development Guidelines Part C Section 4.1.1* (2008).

Table 6 – Construction Phase Pollutants

Pollutant	Potential Source
Litter	Paper, construction packaging, food packaging, cement bags, off-cuts.
Sediment	Unprotected exposed soils and stockpiles during earthworks and building works.
Hydrocarbons	Fuel/oil spills, leaks from construction equipment, and temporary car park areas.
Toxic Materials	Cement Slurry, asphalt primer, solvents, cleaning agents, and washwaters etc.
pH altering substances	Cement slurry, acid sulfate soils, and washwaters

4.1.2 WATER QUALITY OBJECTIVES

Table 7 presents an extract from *Table A, Appendix 2* of the *State Planning Policy* (2017) objectives for construction phase stormwater quality management.

Table 7 – Construction Phase Performance Criteria

Issue	Desired Outcomes
Erosion control	1. Staged clearing and construction work to minimise the area of exposed soil at any one time. 2. Effectively cover or stabilise exposed soils prior to predicted rainfall. 3. Prior to completion of works for the development, and prior to removal of sediment controls, all site surfaces must be effectively stabilised using methods which will achieve effective short-term stabilisation.
Sediment Control	1. Direct runoff from exposed site soils to sediment controls that are appropriate to the extent of disturbance and level of erosion risk. 2. All exposed areas greater than 2500m² must be provided with sediment controls which are designed, implemented and maintained to a standard which would achieve at least 80% of the average annual runoff volume of the contributing catchment treated (i.e. 80% hydrological effectiveness) to 50mg/L Total Suspended Solids (TSS) or less, and pH in the range (6.5–8.5).

4.1.3 STORMWATER QUALITY MANAGEMENT STRATEGY

BCC's Erosion Hazard Assessment ("**EHA**") form has been completed (by others) and is included in **Appendix H.** Based on the EHA, the site is classed as "medium" risk. Accordingly, an erosion and sediment control ("**ESC**") management plan that is endorsed by a CPESC or RPEQ will be prepared during the operational work phase and implemented during the construction phase. ESC measures may include devices such as;

- a sediment basin,
- catch drains,
- diversion drains,
- silt fences,
- construction entry/exit pads, and the like.

4.1.4 MONITORING & MAINTENANCE

The general requirement of monitoring during the construction phase are:

- Work activities to be restricted to designated construction areas.
- Earthwork and site clearing to be undertaken in accordance with the ESC management plans.
- ESC devices to be constructed in accordance with the plans prepared during detailed design phase.
- Inspect sediment fences and ESC structures/devices on a weekly basis as well as after any rain event exceeding 25mm in 24hrs.
- Stormwater discharges from the site are not to have any adverse effect on the downstream environment.
- Monitor and record of the performance of the drainage control devices including water quality testing where required.
- Any failure in the stormwater system to be immediately rectified to prevent uncontrolled discharge from the site.
- Any failure to the stormwater system causing damage to surroundings should implement immediate remedial work to the damaged area.

4.1.5 RESPONSIBILITY & REPORTING

- The contractor shall be responsible for monitoring the performance of all drainage control and ESC devices.
- Records of any failures to devices should be kept and reported to the Construction Manager.
- Regular inspections of the devices shall be reported to the Construction Manager.
- Inspections of the devices after heavy rainfall shall be reported to the Construction Manager.

4.2 OPERATIONAL PHASE STORMWATER QUALITY MANAGEMENT

It is acknowledged that the development footprint is greater than 2,500m² and creates more than 6 new lots. It triggers compliance with *Section B* of Council's *Stormwater Code* (2014) and the *State Planning Policy* (2017) for stormwater quality management. However, as mentioned in previous sections of this report, a stormwater basin is not feasible with the revised stormwater discharge strategy. Therefore, we request Council to consider a relaxation for water quality outcomes for this site as generally agreed at the meeting held on the 23rd of October 2025.

Water Sensitive Urban Design ("WSUD") tree pits on Redhead Street were considered; however, with new lots sitting below the road, no development runoff can discharge into the tree pits. The narrow frontages of the lots also make it challenging to fit WSUD tree pits amongst other necessary infrastructure (e.g. driveways, bin collection areas, streetlights, power boxes, water meters etc). Overall, it is concluded that WSUD tree pits would not provide any meaningful water quality benefits in this instance and therefore are not proposed.

Instead, we seek Council acceptance for the development as currently proposed, noting that it provides a 13m wide environmental corridor to the west and a bushfire buffer to the south.

4.3 WATERWAY STABILITY MANAGEMENT

The waterway stability objective applies if the development drains to an unlined waterway where a risk of increased erosion exists due to changes in hydrology. The objective set out in the *State Planning Policy* (2017) is liming the peak 1-year ARI (63% AEP) event peak discharge to the pre-development peak.

Although the 63% AEP flow rates are slightly increased in the waterway corridor, it is minor. The flood impact maps in Appendix G show no perceivable difference in 63% AEP flow velocities between pre and post-development scenarios. The proposal is therefore not expected to result in increased erosion in the downstream waterway.

5. CONCLUSION & RECOMMENDATIONS

JFP Urban Consultants Pty Ltd has prepared this *Site Based Stormwater Management Plan* for the proposed subdivision at 8 Redhead Street, Doolandella. The following revised outcomes are noted:

Stormwater Quantity

- The proposed stormwater discharge strategy is to collect and convey roofwater to the existing headwall location via a new 600Ø RCP (subject to detailed design) along Redhead Street.
- On-site detention is not proposed.
- With roofwater diverted to Redhead Street, surface runoff discharging to the rear is decreased. Major storm surface runoff will flow south across the rear site boundary as broad sheet flow.
- Hydraulic analysis results demonstrate minor 10-20mm flood level increases in the waterway corridor. This is minor and located in already flood affected waterway corridor. It does not alter the development potential of the land. Council acceptance is sought for these increases, given the negligible nature of the impacts.

Stormwater Quality

- The site is "medium" risk based on the completed EHA form. An erosion and sediment control management plan that is endorsed by a CPESC or RPEQ will be prepared during detailed design and implemented during construction.
- An alternative approach to the Operational Phase stormwater quality management is proposed as a basin is not feasible with the proposed discharge strategy. Instead, Council acceptance is sought for the development as currently proposed, noting that it provides a 13m wide environmental corridor to the west as well as a bushfire buffer to the south.
- Although the 63% AEP flow rate is slightly increased in the waterway corridor, the flood impact maps in Appendix G show no perceivable difference in 63% AEP flow velocities between pre and post-development scenarios, illustrating that the proposal is not expected to result in increased erosion within the waterway.

6. DISCLAIMER

This report has been prepared for the purpose and exclusive use of Ausbuild Group Pty Ltd as an investigation into the stormwater management issues related for the proposed development of the land described in the report. The information presented in this report is not to be used for any other purpose or by any other person or corporation.

JFP Urban Consultants Pty Ltd accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this report without further input and/or advice from JFP Urban Consultants Pty Ltd.

The investigations, calculations, analysis and recommendations presented in this report rely on information sourced from third-parties. JFP Urban Consultants Pty Ltd accepts no responsibility for the accuracy of the information sourced from third-parties.

7. APPENDICES

- Appendix A – Proposed Layout
- Appendix B – Catchment Plans
- Appendix C – Preliminary Engineering Design Plans
- Appendix D – Rational Method Calculation
- Appendix E – Pre-Development Flood Depth Plans
- Appendix F – Post-Development Flood Depth Plans
- Appendix G – Flood Impact Plans (level, velocity & hazard)
- Appendix H – Erosion Hazard Assessment Form
- Appendix I – Details of Existing Detention Basin 1
- Appendix J – Details of Existing Detention Basin 2

APPENDIX A

PROPOSED LAYOUT

PADDINGTON ST

REDHEAD STREET

BLUNDER ROAD

Refer approved plans for final layout

SUPERSEDED

AMENDED IN RED

BRISBANE CITY COUNCIL

22/05/2026

PROPERTY DESCRIPTION

LOT 72 ON RP88590

TOTAL AREA 1.018 ha (Survey)

NOTES

(1) This plan was prepared for the purpose and exclusive use of AUSBUILD PTY LTD to accompany an application to BRISBANE CITY COUNCIL for a Development Permit to Reconfigure the land described in the plan and is not to be used for any other purpose or by any other person or corporation.
JFP URBAN CONSULTANTS PTY LTD accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this plan in contravention to the terms of this clause or clauses 2, 3, 4, 5, 6 or 7 hereof.

(2) The contours on this plan are from field survey - see JFP detail plan (B4687A2DA3-08A) dated 15/05/2025.

(3) The dimensions, areas, size and location of improvements, flood information (if shown) and number of lots shown on this plan are approximate only and may vary.

(4) The trees shown on this plan have been surveyed on JFP detail plan (B4687SA2DA3-08A) dated 15/05/2025.

(5) Safety in Design
The Urban Design for the layout proposal has been developed to meet the stated project brief, as expressed in JFP Urban Consultants Offer for the works, and the Design Standards stipulated by the Local Authority named on this plan.
Non-standard design solutions adopted in the preparation of the layout are listed as follows;

- **None**

(6) The State Government proposes changes to the Queensland Development Code to reflect the provisions of the National Construction Code 2022. These changes once implemented will have an impact on the design of the future dwellings on the proposed allotments identified on this plan. The amendments to the QDC may also be subject to transitional provisions and we would strongly recommend that you discuss these matters further with your preferred Building Certifier.

(7) This plan may not be reproduced unless these notes are included.

LEGEND

- SUBJECT SITE
- EXISTING TREE (Survey)
- BIODIVERSITY AREAS - HIGH ECOLOGICAL SIGNIFICANCE
- BIODIVERSITY AREAS - HIGH ECOLOGICAL SIGNIFICANCE STRATEGIC
- LOCAL WATERWAY CORRIDOR
- CORE KOALA HABITAT AREA
- BUSHFIRE BUFFER
- BUILDING ENVELOPE

STATISTICS		
NO. OF LOTS		
300m² min.	13	(65%)
400m² min.	1	(5%)
450m² min.	5	(25%)
900m² min.	1	(5%)
TOTAL	20	(100%)
TOTAL AREA (ha)	1.018	
DENSITY (lots/ha)	19.6	
AVERAGE LOT SIZE (m²)*	453	

* Excludes Lot 18 (larger than 900m²)

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PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: N

SCALE: SCALE: @ A3 1:1000

0 10 20 30 40 50 60 70

THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE - (A3 SIZE)
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

DESIGNED	TJM	CHECKED	JC	COUNCIL REF
DRAWN	TJM	APPROVED	ST	L.A. BRISBANE CITY COUNCIL

ISSUES:

ISSUE:	DETAILS:	DATE:	INIT:
G	BUSHFIRE BUFFER AMENDED	19-11-25	DWW
F	LOTS 1-4 AMENDED	04-11-25	TJM
E	LAYOUT AMENDED	04-11-25	TJM
D	LOTS 2 & 3 AMENDED	11-07-25	TJM
C	LAYOUT AMENDED	09-07-25	TJM
B	LAYOUT AMENDED	11-06-25	TJM
A	ORIGINAL	26-05-25	TJM

TITLE:

RECONFIGURATION PLAN
AUSBUILD PTY LTD
8 REDHEAD STREET, DOOLANDELLA

DETAILS:

JOB NUMBER: B4687PA2_DA3 PLAN: R1 ISSUE: G

SHEET: 1 OF 1

DATE: 19th November 2025

APPENDIX B

CATCHMENT PLANS

LEGEND:

- SITE BOUNDARY
- CATCHMENT BOUNDARY
- CATCHMENT LABEL (A)

CATCHMENT DATA

Catchment Name	Area (ha)	Fi	Impervious Area (ha)	Pervious Area (ha)	Slope (%)
A	1.193	76%	0.907	0.286	1.0%
B	0.626	35%	0.220	0.406	4.0%
C	0.270	85%	0.230	0.041	1.0%
D	0.283	70%	0.198	0.085	1.0%
E	0.399	65%	0.259	0.140	2.0%
F	0.095	60%	0.057	0.038	5.0%
G	2.742	5%	0.125	2.617	3.0%
H	2.500	76%	1.906	0.594	3.5%
I	0.113	60%	0.068	0.045	6.0%
J	0.124	60%	0.074	0.050	2.5%
K	1.251	5%	0.063	1.188	6.0%
L	2.507	70%	1.755	0.752	4.0%
M	3.831	65%	2.490	1.341	2.4%
N	1.057	85%	0.898	0.159	1.0%
O	0.537	51%	0.276	0.261	6.0%
P1	0.321	70%	0.225	0.096	3.0%
P2	0.343	70%	0.240	0.103	1.0%
P4	0.201	70%	0.141	0.060	1.0%
Q	0.424	27%	0.113	0.311	4.0%
R	3.440	4%	0.123	3.317	3.0%
S	1.018	6%	0.060	0.958	6.0%
T	1.034	85%	0.879	0.155	3.0%
TOTAL	**24.309**	**47%**	**11.306**	**13.003**	

HYDROLOGY LOSSES

AEP	Impervious IL (mm)	Impervious CL (mm/hr)	Impervious Manning's n	Pervious IL (mm)	Pervious CL (mm/hr)	Pervious Manning's n
63%	1	0	0.014	30	2.5	0.03
39%	1	0	0.014	30	2.5	0.03
18%	1	0	0.014	30	2.5	0.03
10%	1	0	0.014	30	2.5	0.03
5%	1	0	0.014	30	2.5	0.03
2%	1	0	0.014	15	2.5	0.03
1%	1	0	0.014	15	2.5	0.03

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PRE-DEVELOPMENT CATCHMENT PLAN

8 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

JOB NO:	PLAN:	ISSUE:
B4687EA2_DA3	SK01	B

SCALE:
DATE: 30/09/2025
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FILE NAME: B4687EA2_DA3_SK01.DWG

LEGEND:

SITE BOUNDARY

CATCHMENT BOUNDARY

CATCHMENT LABEL (A)

CATCHMENT DATA

Catchment Name	Area (ha)	Fi	Impervious Area (ha)	Pervious Area (ha)	Slope (%)
A	1.193	76%	0.907	0.286	1.0%
B	0.626	35%	0.220	0.406	4.0%
C	0.270	85%	0.230	0.041	1.0%
D	0.283	70%	0.198	0.085	1.0%
E	0.399	65%	0.259	0.140	2.0%
F	0.095	60%	0.057	0.038	5.0%
G	2.742	5%	0.125	2.617	3.0%
H	2.500	76%	1.906	0.594	3.5%
I	0.113	60%	0.068	0.045	6.0%
J	0.124	60%	0.074	0.050	2.5%
K	1.251	5%	0.063	1.188	6.0%
L	2.507	70%	1.755	0.752	4.0%
M	3.831	65%	2.490	1.341	2.4%
N	1.057	85%	0.898	0.159	1.0%
O	0.537	51%	0.276	0.261	6.0%
P1	0.321	70%	0.225	0.096	3.0%
P2	0.343	70%	0.240	0.103	1.0%
P4	0.201	70%	0.141	0.060	1.0%
Q	0.424	27%	0.113	0.311	4.0%
R	3.440	4%	0.123	3.317	3.0%
S1	0.500	100%	0.500	0.000	0.5%
S2	0.518	10%	0.052	0.466	6.0%
T	1.034	85%	0.879	0.155	3.0%
TOTAL	**24.309**	**49%**	**11.798**	**12.511**	

HYDROLOGY LOSSES

AEP	Impervious IL (mm)	Impervious CL (mm/hr)	Impervious Manning's n	Pervious IL (mm)	Pervious CL (mm/hr)	Pervious Manning's n
63%	1	0	0.014	30	2.5	0.03
39%	1	0	0.014	30	2.5	0.03
18%	1	0	0.014	30	2.5	0.03
10%	1	0	0.014	30	2.5	0.03
5%	1	0	0.014	30	2.5	0.03
2%	1	0	0.014	15	2.5	0.03
1%	1	0	0.014	15	2.5	0.03

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POST-DEVELOPMENT CATCHMENT PLAN

8 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

JOB NO:	PLAN:	ISSUE:
B4687EA2_DA3	SK02	B

SCALE:
DATE: 19/11/2025
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FILE NAME: B4687EA2_DA3_SK02.DWG

APPENDIX C

PRELIMINARY ENGINEERING DESIGN PLANS

LEGEND:

EXISTING CONTOURS 32

EXISTING KERB & CHANNEL

EXISTING EDGE OF BITUMEN

PROPOSED KERB & CHANNEL

PROPOSED RETAINING WALL

INDICATIVE DRIVEWAY

TREE LEGEND

TREES PROPOSED TO BE RETAINED AND PROTECTED.

TREES PROPOSED TO BE RETAINED AND REQUIRE ARBORIST (AQF5) DIRECTION & SUPERVISION FOR TPZ WORKS.

TREE PROTECTION ZONE (TPZ)
TPZ to be protected in accordance with Protection of Trees on Development Sites (AS4970-2009) guidelines & any approval conditions.

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Refer approved plans for final layout

PADDINGTON STREET

R E D H E A D S T R E E T

B L U N D E R R O A D

EXISTING FOOTPATH

COV A SP275717

EXISTING TYPE 'E' KERB AND CHANNEL

EXISTING TYPE 'D' KERB AND CHANNEL

1.2m WIDE CONCRETE FOOTPATH

PROPOSED KERB RAMP & 1.2m WIDE CONCRETE FOOTPATH CONNECTION

TYPE 'D' KERB AND CHANNEL

LOT 10 & 11 BIN LOCATION

LOT 12 & 13 BIN LOCATION

LOT 18 & 19 BIN LOCATION

LOT 16 & 17 BIN LOCATION

LOTS 5,6 & 7 BIN LOCATIONS

LOTS 1-4 BIN LOCATIONS

1 in 10 TAPER TO EXISTING EDGE OF BITUMEN

2.5m WIDE VEHICLE CROSSING

2.5m WIDE VEHICLE CROSSING

5.0m WIDE VEHICLE CROSSING

5m WIDE CONCRETE ACCESS DRIVEWAY

PROPOSED KERB RAMP

1 in 10 TAPER TO EXISTING EDGE OF BITUMEN

2.5m WIDE CONCRETE ACCESS DRIVEWAY

DRIVEWAY 1

DRIVEWAY 2

DRIVEWAY 3

SUPERSEDED

16m BUSHFIRE BUFFER ZONE

61 SP286288 · 46 SP286288 · 45 SP286288 · 901 SP286288 · 18 SP315424 · 6 SP275717 · 7 SP275717 · 8 SP275717 · 9 SP275717 · 10 SP279452 · 11 SP279452 · 12 SP279452 · 13 SP279452 · 14 SP279452 · 15 SP279452 · 16 SP279452 · 17 SP279452 · 18 SP279452 · 19 SP279452 · 5 SP282295 · 6 SP282295 · 7 SP282295 · 8 SP282295 · 9 SP282295 · 10 SP282295 · 16 SP282295 · 17 SP282295 · 18 SP282295 · 19 SP282295 · 20 SP282295 · 21 SP282295 · 22 SP282295 · 71 RP90234 · 35 RP88590

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ENGINEERING CONCEPT - FUNCTIONAL TRAFFIC LAYOUT

8 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

0 5 10 15 20 25 50 Metres
(A1) 1:500
(A3) 1:1000

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JOB NO:	PLAN:	ISSUE:
B4687EA2_DA3	CT01	C

SCALE: 1:500 @ A1
DATE: 25/11/25
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FILE NAME: B4687A2_DA3 [CONCEPT].DWG

25/11/2025 N:\B4687A2\DA3\DESIGN\WORKING DRAWINGS\B4687A2_DA3 [CONCEPT]

Refer approved plans for final layout

PADDINGTON STREET

R E D H E A D S T R E E T

10 SP279452 | 11 SP279452 | 12 SP279452 | 13 SP279452 | 14 SP279452 | 15 SP279452 | 16 SP279452 | 17 SP279452

5 SP282295 | 6 SP282295 | 7 SP282295 | 8 SP282295 | 9 SP282295 | 10 SP2822:

COV A SP275717

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SUPERSEDED

TREE LEGEND

TREES PROPOSED TO BE RETAINED AND PROTECTED.

TREES PROPOSED TO BE RETAINED AND REQUIRE ARBORIST (AQF5) DIRECTION & SUPERVISION FOR TPZ WORKS.

TREE PROTECTION ZONE (TPZ)
TPZ to be protected in accordance with Protection of Trees on Development Sites (AS4970-2009) guidelines & any approval conditions.

LEGEND:

EXISTING CONTOURS 32

FINISHED CONTOURS 32

PRELIMINARY PAD LEVEL (PL) PL40.65

PRELIMINARY FILLING

PRELIMINARY EXCAVATION

PRELIMINARY RETAINING WALL

GRASSED SWALE

NOTES:

1. BATTERS BETWEEN ALLOTMENTS TO BE 1 IN 2 MAXIMUM.
2. PAD AND EARTHWORKS LEVELS ARE PRELIMINARY ONLY AND ARE SUBJECT TO DETAILED ENGINEERING DESIGN.
3. RETAINING WALL HEIGHTS ARE INDICATIVE ONLY AND ARE SUBJECT TO DETAIL ENGINEERING DESIGN.
4. PLEASE REFER TO THE TREE RETENTION PLAN (TRP) FOR DETAILS PERTAINING TREE RETENTION &/OR REMOVAL

C CE04 | D CE04 | E CE04 | A CE04 | B CE04

1.0m-0.2m HIGH TYPE A2

0.2-1.3m HIGH TYPE B1 | 0.2m-0.6m HIGH TYPE A2 | 0.2m-0.7m HIGH TYPE A3 | 0.2m-0.7m HIGH TYPE A2 | 1.0m-0.2m HIGH TYPE A2 | 0.2-1.15m HIGH TYPE A4 | 1.15-1.4m HIGH TYPE A4 | 0.6-1.4m HIGH TYPE A4 | 1.1-0.7m HIGH TYPE A4 | 1.2-0.9m HIGH TYPE A4 | 0.9-0.8m HIGH TYPE A4

20 | 19 | 16 | 15 | 14 | 13 | 10 | 9 | 8 | 7 | 1 | 2 | 3 | 4 | 5

PL38.00 | PL38.40 | PL38.80 | PL39.05 | PL39.40 | PL39.55 | PL39.80 | PL40.00 | PL40.15 | PL40.25 | PL41.55 | PL41.10 | PL40.60 | PL40.60 | PL39.45

DRIVEWAY 1 | DRIVEWAY 2 | DRIVEWAY 3

1.3-1.9m HIGH TYPE B1 | 0.2-1.2m HIGH TYPE A3 | 0.9m-0.2m HIGH TYPE A3 | 0.2m-0.75m HIGH TYPE A3 | 1.1m HIGH TYPE A1 | 0.85m HIGH TYPE A1 | 0.9m HIGH TYPE A1 | 0.95m HIGH TYPE A1

1.80-2.2m HIGH TYPE B1

PL37.90 | PL38.20 | PL38.75 | PL39.05 | PL40.20

18 | 17 | 12 | 11 | 6

2.2m-0.2m HIGH TYPE B | 1.15m HIGH TYPE A1 | 0.2m-0.75m HIGH TYPE A1 | 1.15m HIGH TYPE A1

2.2m HIGH TYPE B | 0.2m-2.25m HIGH TYPE B | 0.75m HIGH TYPE A1 | 2.25m HIGH TYPE B | 1.9-1.6m HIGH TYPE B4

1 in 4 BATTER

16m BUSHFIRE BUFFER ZONE

RP88590

2.25-1.8m TYPE B5 | 1-0.2m TYPE A5 | 0.2-1.6m TYPE B4

BLUNDELL ROAD

0 2.5 5 7.5 10 12.5 (A1) 1:250 25 Metres
(A3) 1:500

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ENGINEERING CONCEPT - EARTHWORKS PLAN

8 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

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JOB NO:	PLAN:	ISSUE:
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SCALE: 1:250 @ A1
DATE: 25/11/25
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FILE NAME: B4687A2_DA3 [CONCEPT].DWG

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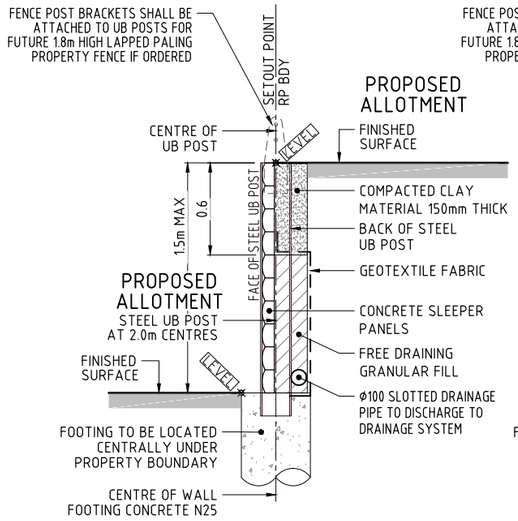
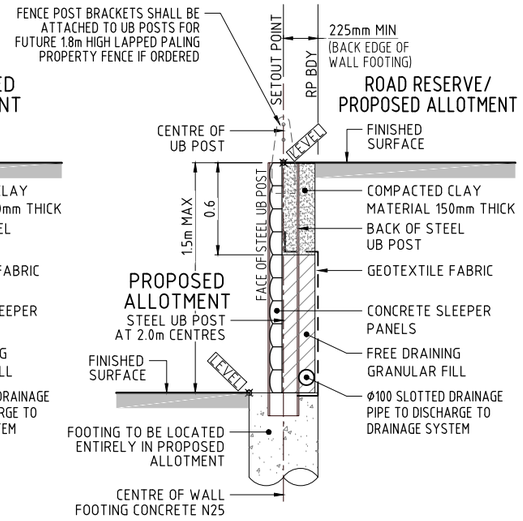


TYPICAL SECTION - TYPE A1
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

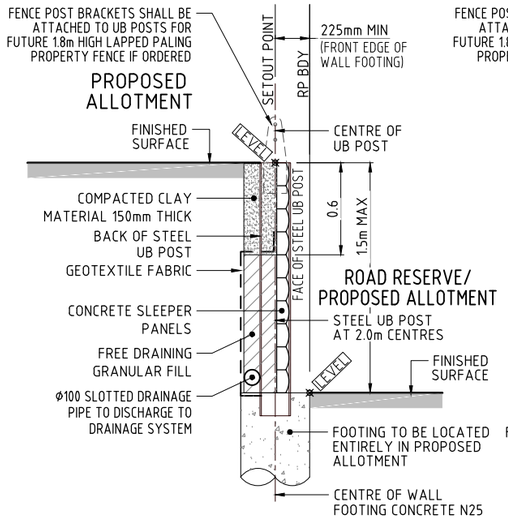
NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



TYPICAL SECTION - TYPE A2
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

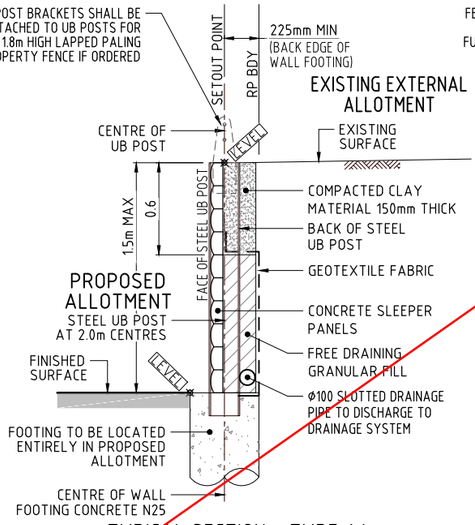
NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



TYPICAL SECTION - TYPE A3
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

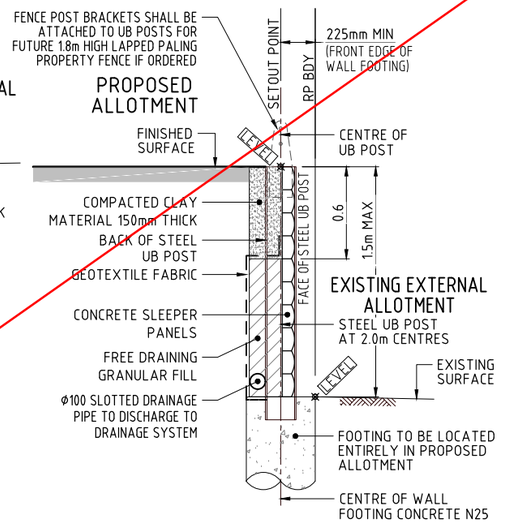
NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



TYPICAL SECTION - TYPE A4
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



TYPICAL SECTION - TYPE A5
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE

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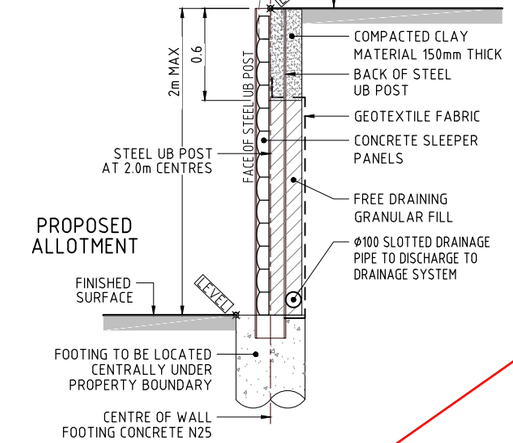
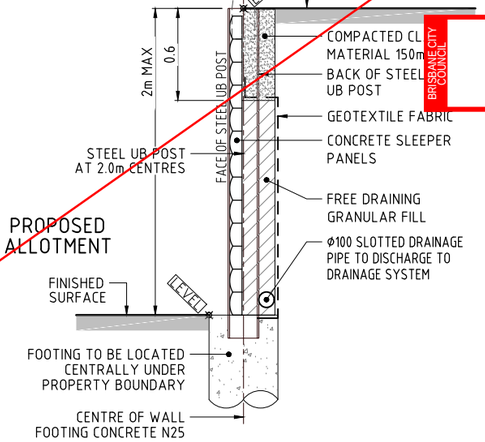


TYPICAL SECTION - TYPE B
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

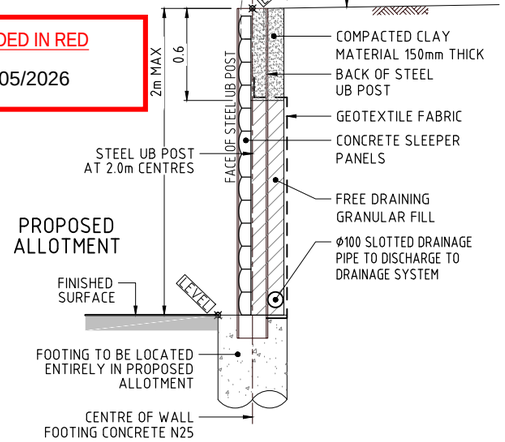
NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



TYPICAL SECTION - TYPE B1
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

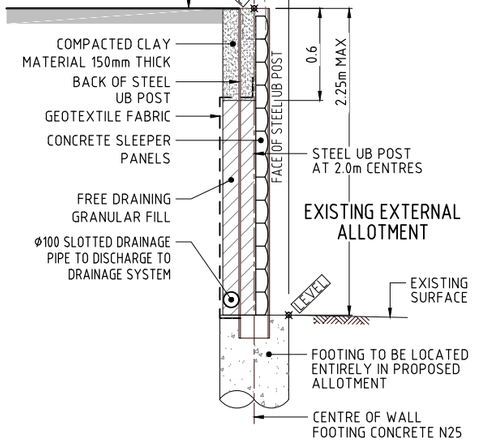
NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



TYPICAL SECTION - TYPE B4
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



TYPICAL SECTION - TYPE B5
CONCRETE SLEEPER/UB POST RETAINING WALL

SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE

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ENGINEERING CONCEPT - EARTHWORKS DETAILS

8 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

0 0.2 0.4 0.6 0.8 1 (A1) 1:20 2 Metres
(A3) 1:40

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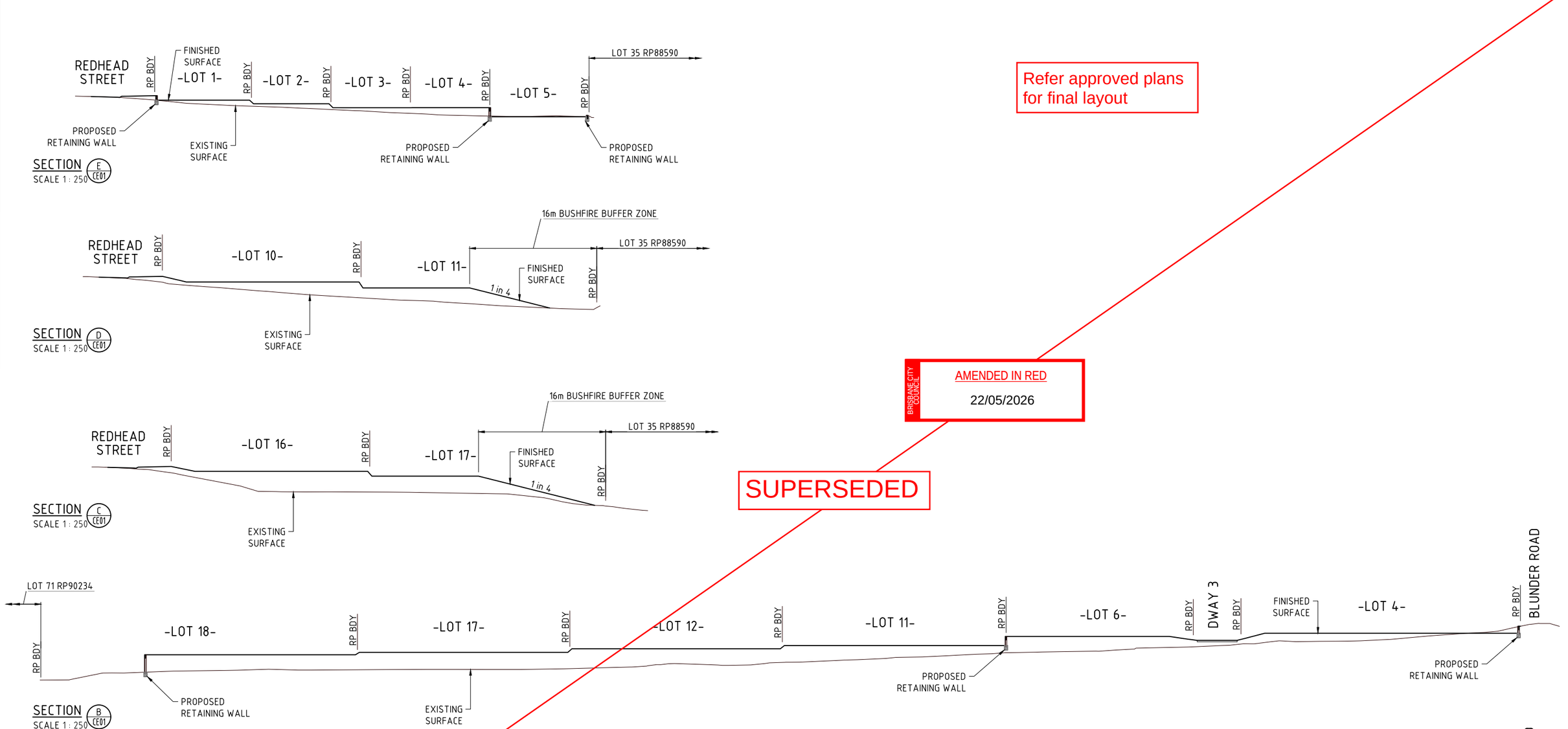
SECTION E CE01
SCALE 1 : 250

SECTION D CE01
SCALE 1 : 250

SECTION C CE01
SCALE 1 : 250



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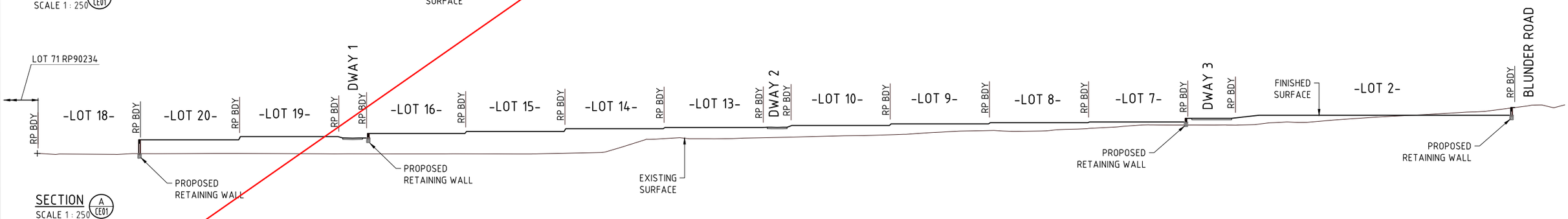

SECTION A CE01
SCALE 1 : 250

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ENGINEERING CONCEPT - EARTHWORKS SECTIONS

8 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

0 2.5 5 7.5 10 12.5 (A1) 1:250 25 Metres
(A3) 1:500

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22/05/2026

TREE LEGEND

TREES PROPOSED TO BE RETAINED AND PROTECTED.

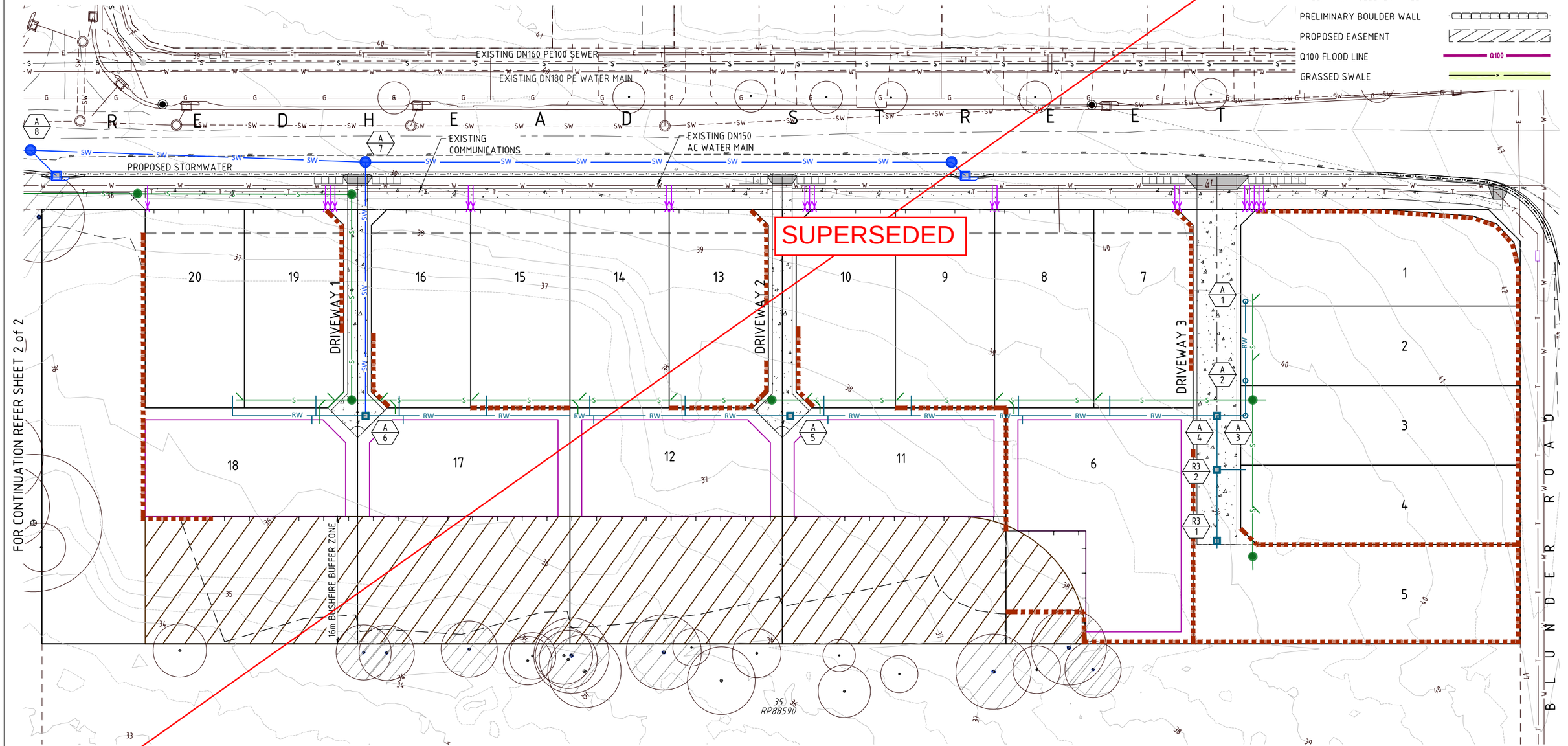
TREES PROPOSED TO BE RETAINED AND REQUIRE ARBORIST (AQF5) DIRECTION & SUPERVISION FOR TPZ WORKS.

TREE PROTECTION ZONE (TPZ)
TPZ to be protected in accordance with Protection of Trees on Development Sites (AS4970-2009) guidelines & any approval conditions.

PRELIMINARY SERVICES LEGEND:

- FINISHED CONTOURS
- EXISTING WATER
- EXISTING SEWERAGE
- EXISTING DRAINAGE
- EXISTING ROOFWATER
- EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL (U/GROUND)
- PRELIMINARY DRAINAGE
- PRELIMINARY ROOFWATER
- PRELIMINARY SEWERAGE
- PRELIMINARY WATER
- PRELIMINARY SLEEPER WALL
- PRELIMINARY BOULDER WALL
- PROPOSED EASEMENT
- Q100 FLOOD LINE
- GRASSED SWALE

SUPERSEDED



0 2.5 5 7.5 10 12.5 (A1) 1:250 25 Metres
(A3) 1:500

ENGINEERING CONCEPT - SERVICES LAYOUT PLAN - SHEET 1 OF 2

8 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

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B4687EA2_DA3	CS01	C

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TREE LEGEND

TREES PROPOSED TO BE RETAINED AND PROTECTED.

TREES PROPOSED TO BE RETAINED AND REQUIRE ARBORIST (AQF5) DIRECTION & SUPERVISION FOR TPZ WORKS.

TREE PROTECTION ZONE (TPZ)
TPZ to be protected in accordance with Protection of Trees on Development Sites (AS4970-2009) guidelines & any approval conditions.

BRISBANE CITY COUNCIL

AMENDED IN RED

22/05/2026

PRELIMINARY SERVICES LEGEND:

- FINISHED CONTOURS
- EXISTING WATER
- EXISTING SEWERAGE
- EXISTING DRAINAGE
- EXISTING ROOFWATER
- EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL (U/GROUND)
- PRELIMINARY DRAINAGE
- PRELIMINARY ROOFWATER
- PRELIMINARY SEWERAGE
- PRELIMINARY WATER
- PRELIMINARY SLEEPER WALL
- PRELIMINARY BOULDER WALL
- PROPOSED EASEMENT
- Q100 FLOOD LINE
- GRASSED SWALE

CONNECT TO EXISTING MANHOLE MH572330

EXISTING DN160 PE100 SEWER

EXISTING DN160 PE100 SEWER

EXISTING DN180 PE WATER MAIN

EXISTING Ø750 STORMWATER

EXISTING Ø750 STORMWATER

EXISTING Ø1050 STORMWATER

PROPOSED STORMWATER

EXISTING COMMUNICATIONS

STORMWATER TO DISCHARGE INTO NEW HEADWALL

A 9

A 10

A 8

SUPERSEDED

101 SP272011

70 RP90234

71 RP90234

20

FOR CONTINUATION REFER SHEET 1 of 2

0 2.5 5 7.5 10 12.5 (A1) 1:250 25 Metres
(A3) 1:500

URBAN CONSULTANTS

BRISBANE - SUNSHINE COAST - CENTRAL QLD

BRISBANE
JFP House - 76 Ernest Street,
South Brisbane Qld 4101
P 07 3012 0100 **W** www.jfp.com.au

JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 050 414 045

PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

ENGINEERING CONCEPT - SERVICES LAYOUT PLAN - SHEET 2 OF 2

8 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step

JOB NO:	PLAN:	ISSUE:
B4687EA2_DA3	CS02	C

SCALE: 1 : 250 @ A1
DATE: 25/11/25
DRAFTED BY: CDV
FILE NAME: B4687A2_DA3 [CONCEPT].DWG

25/11/2025 N:\B4687A\CA\DA3\DESIGN\WORKING DRAWINGS\B4687A2_DA3 [CONCEPT]

STRUCTURE NUMBER	A\1	A\2	A\3	A\4	A\5	A\6	A\7	A\8	A\9	A\10	R3\1	R3\2	A\4
STRUCTURE DESCRIPTION	STD ROOFWATER PIT 550mm DIAMETER	STD ROOFWATER PIT 550mm DIAMETER	STD ROOFWATER PIT 550mm DIAMETER	STD ROOFWATER PIT 600x600 GRATE	STD ROOFWATER PIT 600x600 GRATE	STD ROOFWATER PIT 600x600 GRATE	STD BCC MANHOLE 1050mm DIAMETER	STD BCC MANHOLE 1050mm DIAMETER	STD BCC MANHOLE 1050mm DIAMETER	HEADWALL	STD ROOFWATER PIT 600x600 GRATE	STD ROOFWATER PIT 600x600 GRATE	STD ROOFWATER PIT 550mm DIAMETER
PIPE SIZE (mm)	225	225	225	300	300	600	600	600	600	600	225	225	
PIPE CLASS	U	U	U	U	U	2	2	2	2	2	U	U	
PIPE GRADE (%)	2.5%	2.5%	1%	1.35%	1.65%	0.5%	0.5%	0.5%		0.5%	0.5%	0.5%	
PIPE GRADE (1 in)	1 in 40	1 in 40	1 in 100	1 in 74.1	1 in 60.6	1 in 200	1 in 200	1 in 200		1 in 200	1 in 200	1 in 200	
FULL PIPE VELOCITY (m/s)			Vf=2.43	Vf=2.99		Vf=3.18	Vf=4.89	Vf=1.99		Vf=2.92	Vf=0.94	Vf=3.25	
NORMAL DEPTH VELOCITY (m/s)			Vn=1.22	Vn=2.00		Vn=2.17	Vn=3.16	Vn=1.91		Vn=2.52	Vn=1.03	Vn=2.80	
DATUM RL (m)	21.0										23.0		
PIPE FLOW (Cumecs)			0.012	0.039		0.044	0.081	0.183		0.182	0.028	0.037	
PIPE CAPACITY AT GRADE (Cumecs)			0.269	0.330		0.351	0.778	0.430		0.632	0.038	0.129	
WATER LEVEL IN STRUCTURE													
HYDRAULIC GRADE LEVEL													
DEPTH TO INVERT	1.526	1.309	1.499	1.319	1.683	1.594	1.614	1.164	1.184	1.256	1.276	2.279	2.299	1.729	1.749	1.483	1.503	0.240	0.698	1.181	1.201	1.549	1.569
INVERT LEVEL OF DRAIN	**39.554**	**39.304**	**39.114** 39.052	**39.003**	**38.639**	**38.603**	**38.583**	**37.857**	**37.837**	**36.955**	**36.935** 36.927	**36.775**	**36.755**	**36.544**	**36.524**	35.959	**35.833**	**35.813**	**35.760**	**35.760**	38.752	38.702	38.682	38.648	38.628
DESIGN SURFACE LEVEL	41.079	40.613		40.322		40.197		39.021		38.211		39.054		38.273			37.316		36.000		39.450	39.884		40.197	
SETOUT COORDINATES	E 498567.020 N 6945306.303	E 498565.405 N 6945296.434		E 498564.694 N 6945292.086		E 498561.141 N 6945292.667		E 498508.096 N 6945301.347		E 498455.299 N 6945309.986		E 498460.455 N 6945341.497		E 498419.077 N 6945349.788			E 498282.650 N 6945372.112		E 498272.517 N 6945369.180		E 498558.429 N 6945276.092	E 498560.044 N 6945285.962		E 498561.141 N 6945292.667	
RUNNING CHAINAGE PIPE LENGTH	0.000	10.000 10.000	4.406 2.406	14.406	3.600 18.006		53.750 71.756		53.500 125.256	2.000	31.930 157.186	42.200 199.387		138.241	112.731		337.628	10.548 348.176		0.000	10.001 10.001		6.794 16.795		
LINE	A										R3		

SUPERSEDED

BRISBANE CITY COUNCIL
AMENDED IN RED
22/05/2026

Refer approved plans for final layout

URBAN CONSULTANTS
BRISBANE - SUNSHINE COAST - CENTRAL QLD
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JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 050 414 045

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ENGINEERS
LANDSCAPE ARCHITECTS

ENGINEERING CONCEPT - DRAINAGE LONGITUDINAL SECTION

8 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

0 1 2 3 4 5 (A1) 1:100 V 10 Metres
0 10 20 30 40 50 (A1) 1:1000 H 100

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JOB NO:	PLAN:	ISSUE:
B4687EA2_DA3	CS03	B

SCALE: 1 : 1000 H | 1 : 100 V @ A1
DATE: 20/11/25
DRAFTED BY: CDV
FILE NAME: B4687A2_DA3 [CONCEPT].DWG

25/11/2025 N:\B4687A2\DA3\DESIGN\WORKING DRAWINGS\B4687A2_DA3 [CONCEPT]

APPENDIX D

RATIONAL METHOD CALCULATIONS

RATIONAL METHOD CALCULATION
CATCHMENT "M"

Area & C10

Catchment	Area (ha)	Fi (%)	Co-efficients of Runoff C1	C2	C5	C10	C20	C50	C100
M	3.831	65%	0.69	0.73	0.82	0.86	0.90	0.99	1.00

Time of Concentration

Catchment	Standard Inlet & Pipe Flow				Total Tc (mins)
	Standard Inlet Time (mins)	Pipe Flow Length (m)	Assumed Velocity (m/s)	Pipe Flow Time (mins)	
M	13	300	2	2.5	15.5

Rainfall Intensities (mm/hr)

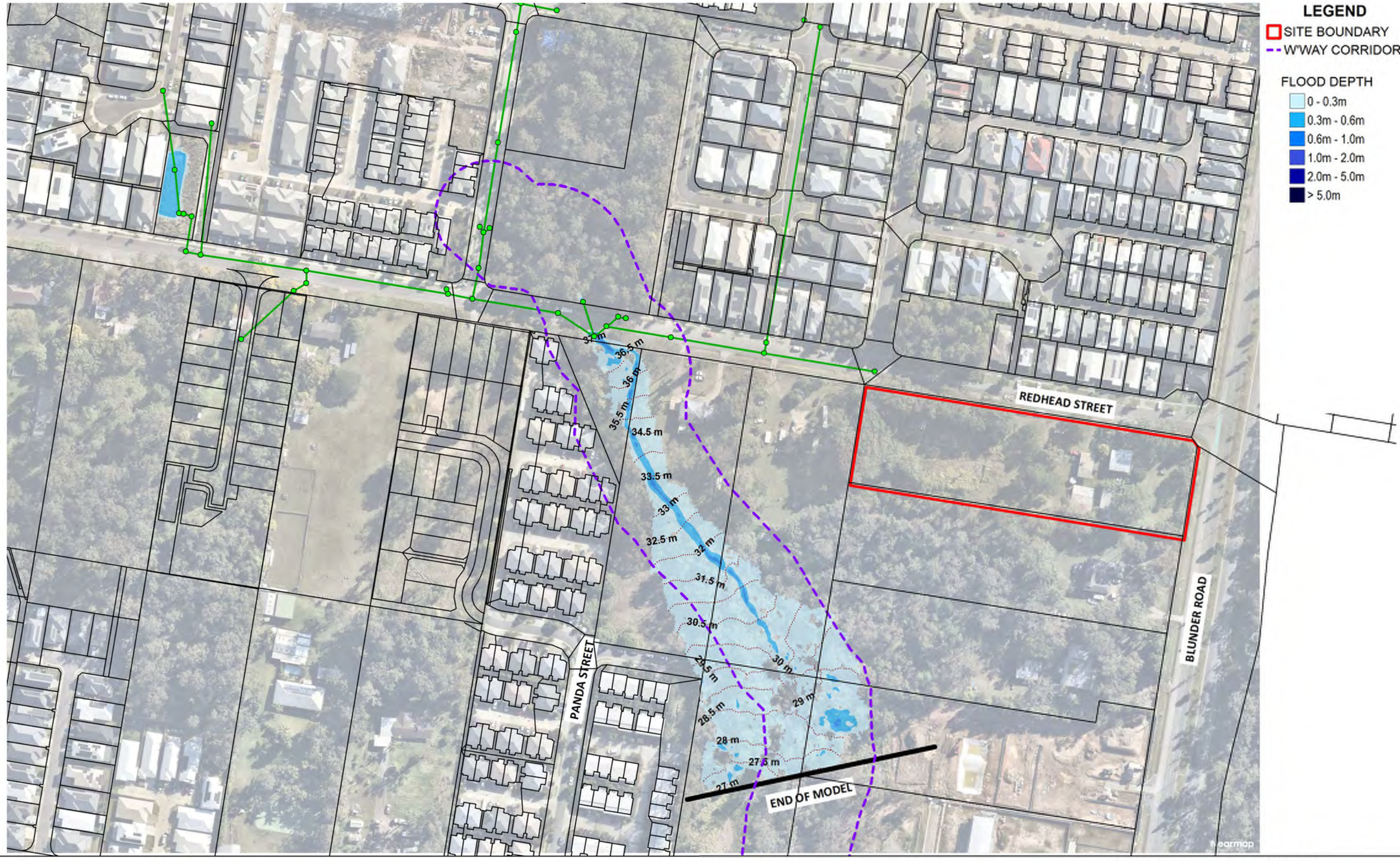
Catchment	$I_{63\%AEP}$	$I_{39\%AEP}$	$I_{18\%AEP}$	$I_{10\%AEP}$	$I_{5\%AEP}$	$I_{2\%AEP}$	$I_{1\%AEP}$
M	74	96	123	140	162	191	214

Peak Flow (m^3/s)

Catchment	63% AEP	39% AEP	18% AEP	10% AEP	5% AEP	2% AEP	1% AEP
M	0.54	0.75	1.07	1.28	1.55	2.01	2.28

APPENDIX E

PRE-DEVELOPMENT FLOOD DEPTH PLANS



URBAN CONSULTANTS

63% AEP FLOOD DEPTH - PRE-DEVELOPMENT SCENARIO

8 REDHEAD STREET, DOLANDELLA

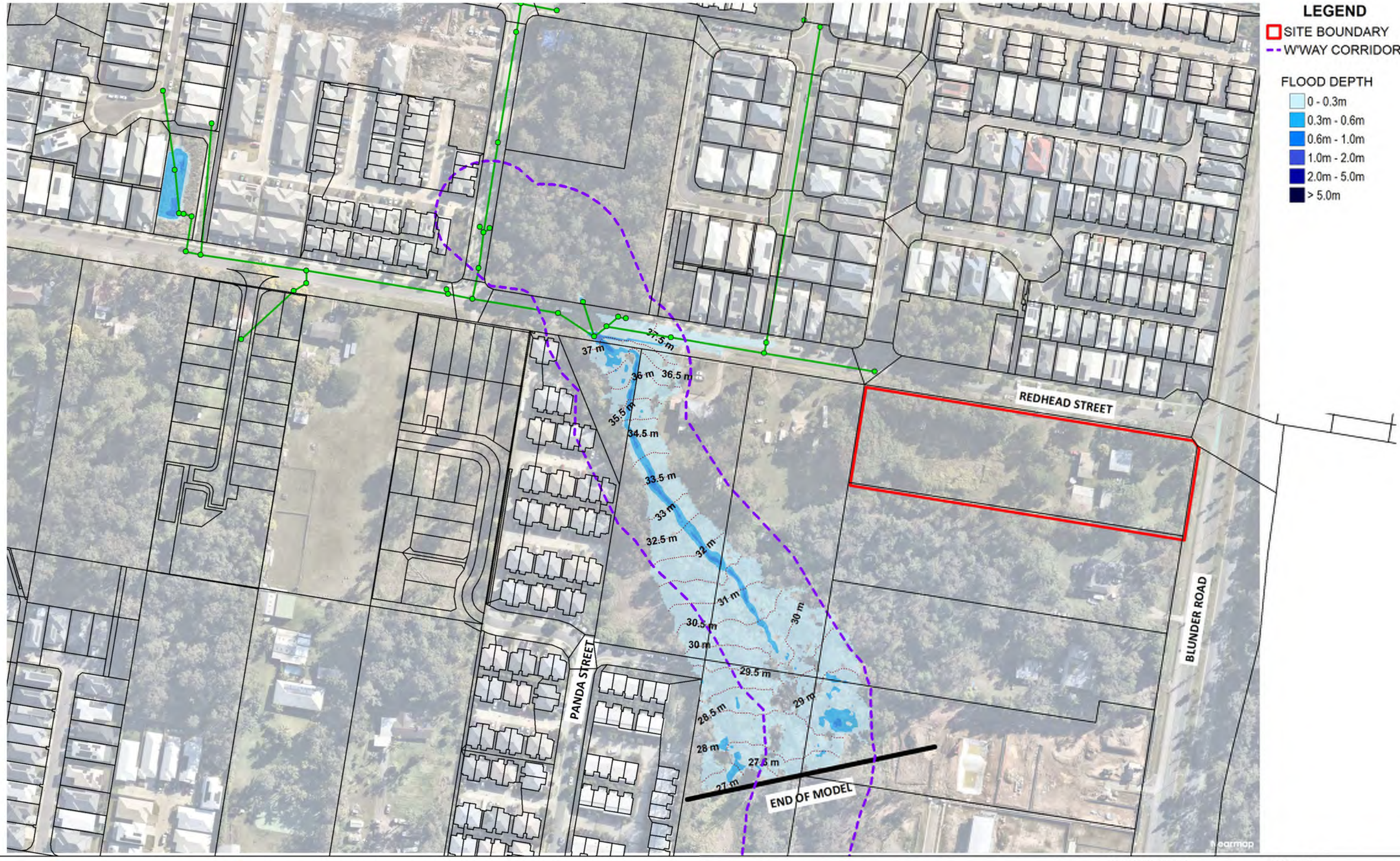
AUSBUILD PTY LTD

DRAWING N0. B4687EA2_DA3_GIS101

ISSUE A

SCALE: 1:2000 @ A3

DATE: 13/11/2025



JFOP URBAN CONSULTANTS

39% AEP FLOOD DEPTH - PRE-DEVELOPMENT SCENARIO

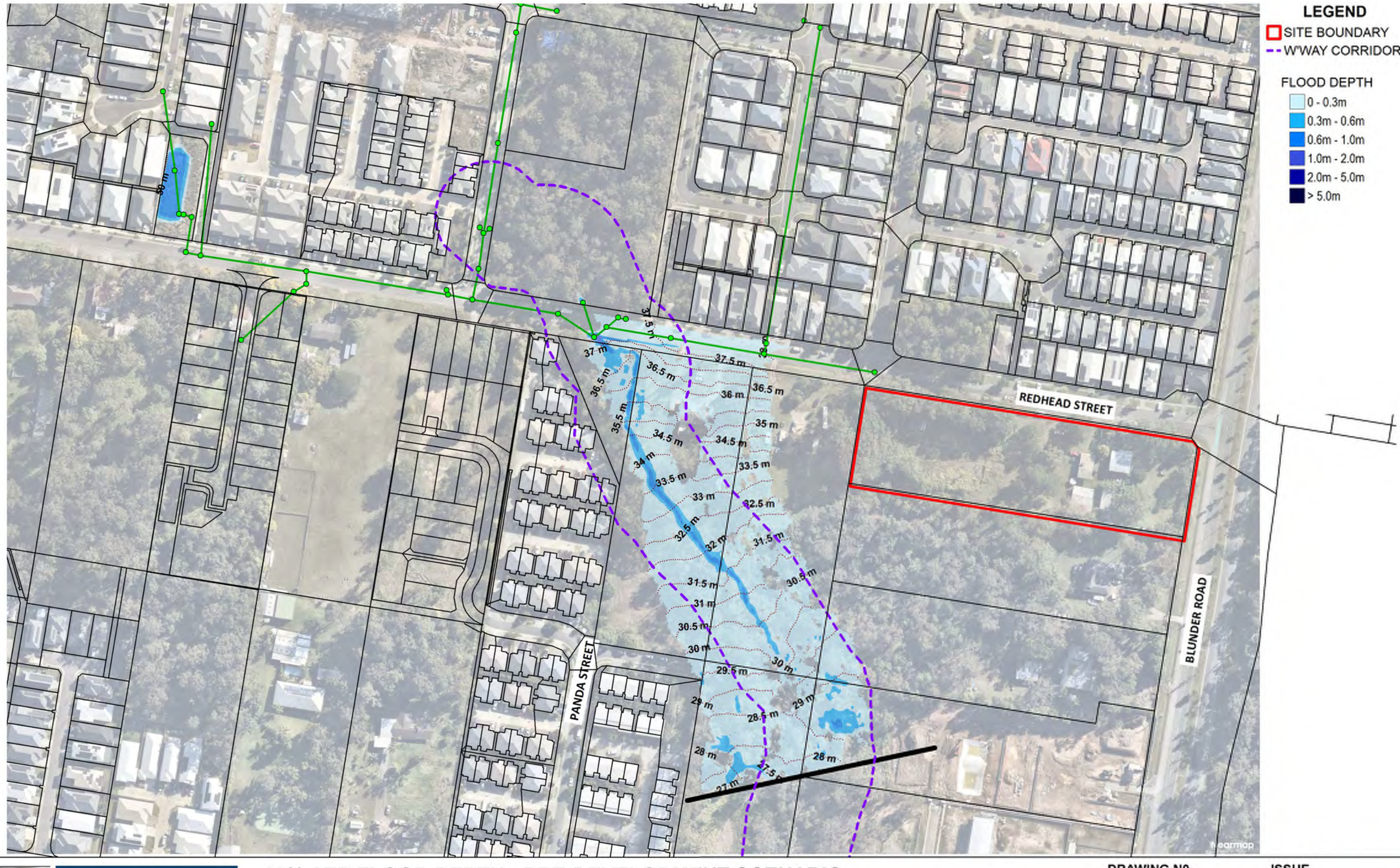
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS102	A

SCALE: 1:2000 @ A3

DATE: 13/11/2025



URBAN CONSULTANTS

18% AEP FLOOD DEPTH - PRE-DEVELOPMENT SCENARIO

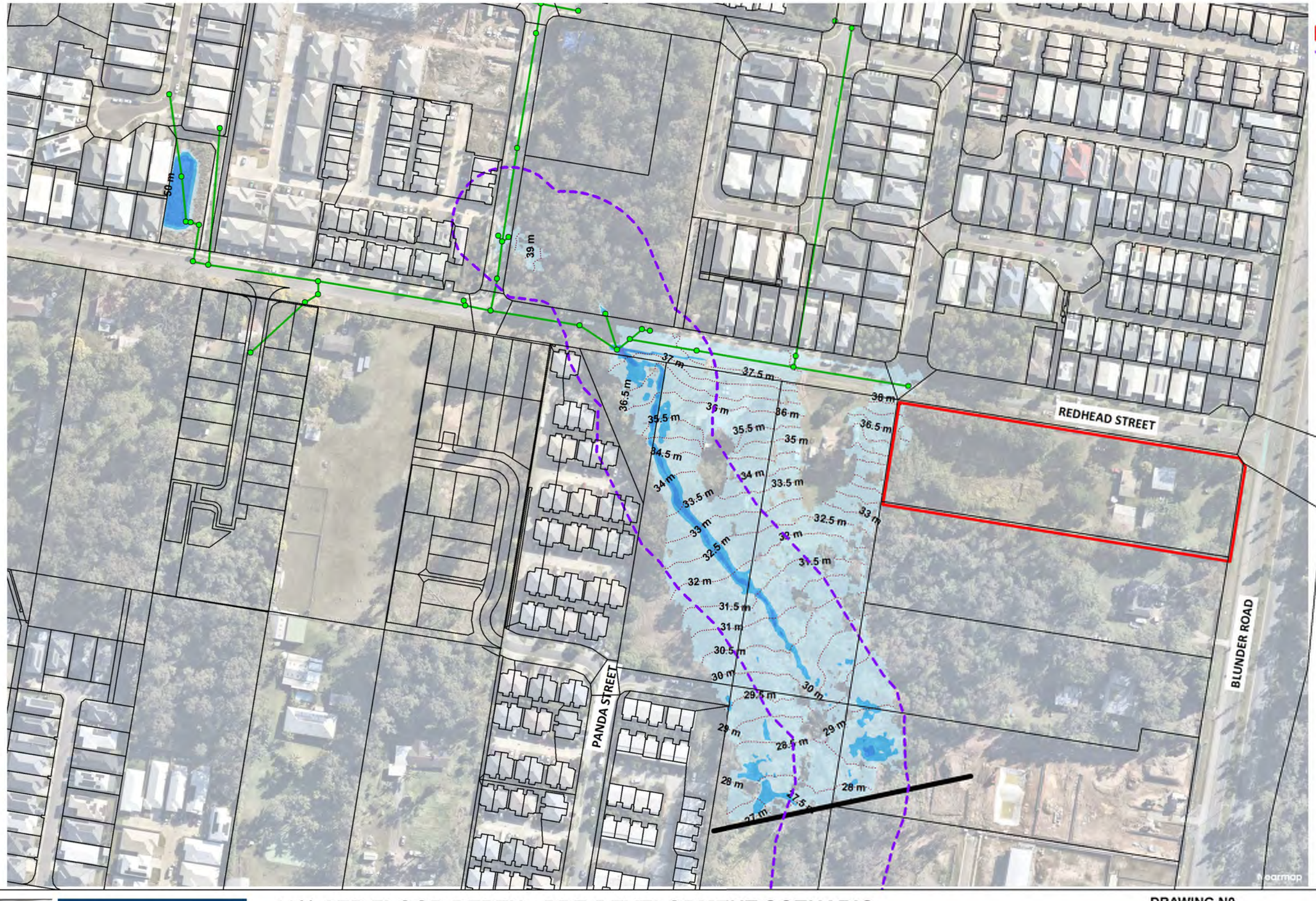
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS103	A

SCALE: 1:2000 @ A3

DATE: 13/11/2025



10% AEP FLOOD DEPTH - PRE-DEVELOPMENT SCENARIO

8 REDHEAD STREET, DOLANDELLA

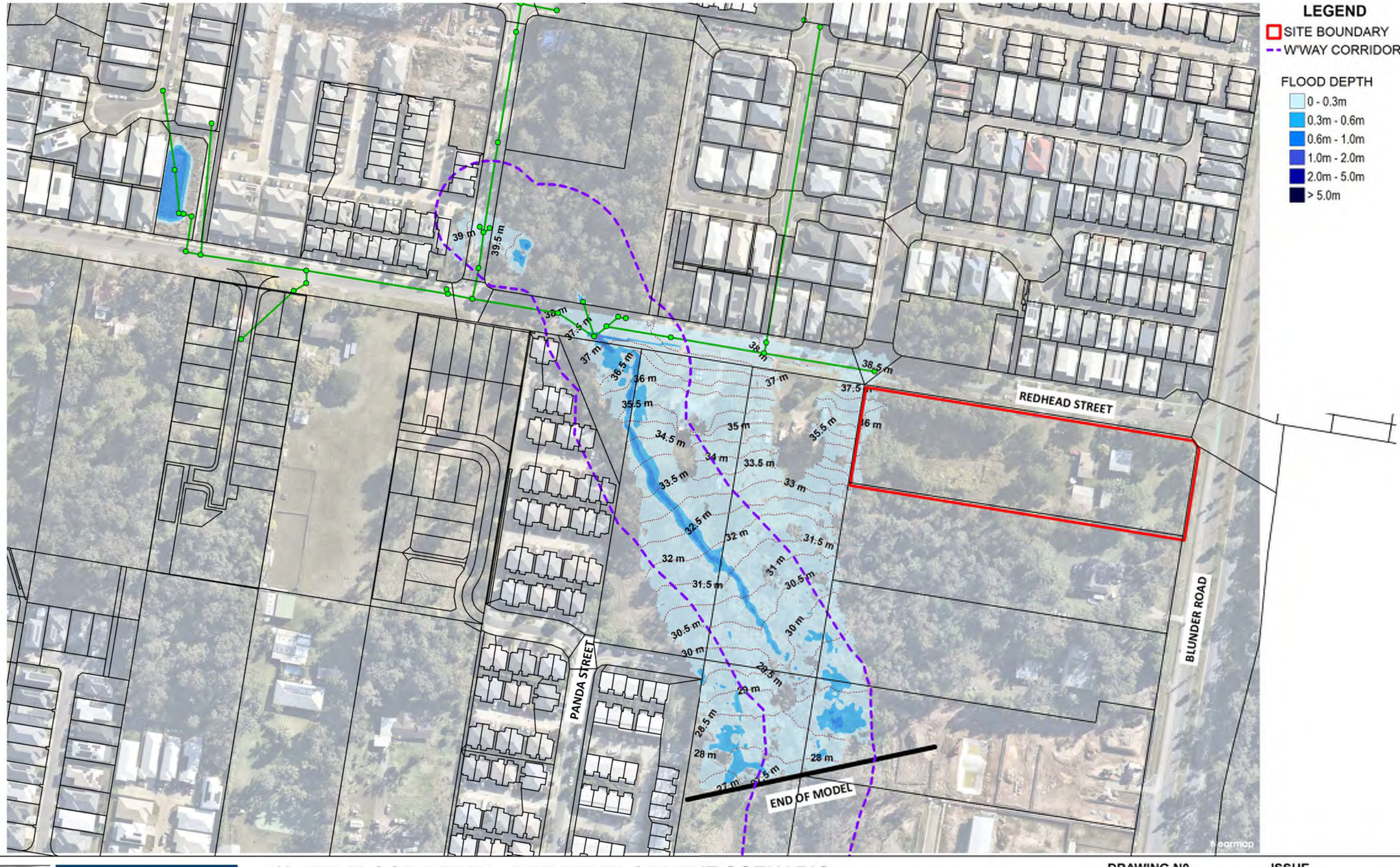
AUSBUILD PTY LTD

URBAN CONSULTANTS

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS104	A

SCALE: 1:2000 @ A3

DATE: 13/11/2025



URBAN CONSULTANTS

5% AEP FLOOD DEPTH - PRE-DEVELOPMENT SCENARIO

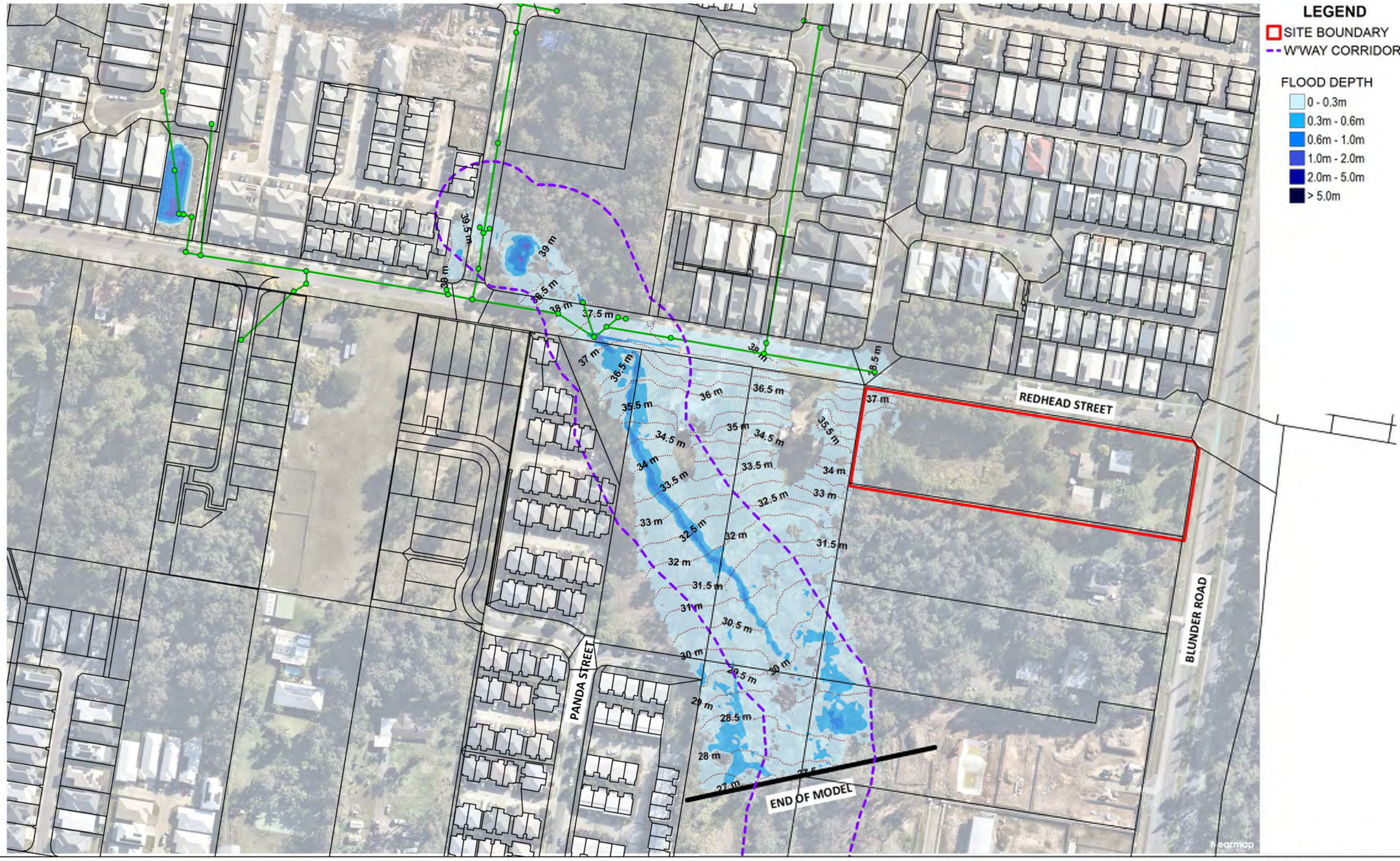
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS105	A

SCALE: 1:2000 @ A3

DATE: 13/11/2025



2% AEP FLOOD DEPTH - PRE-DEVELOPMENT SCENARIO

8 REDHEAD STREET, DOLANDELLA

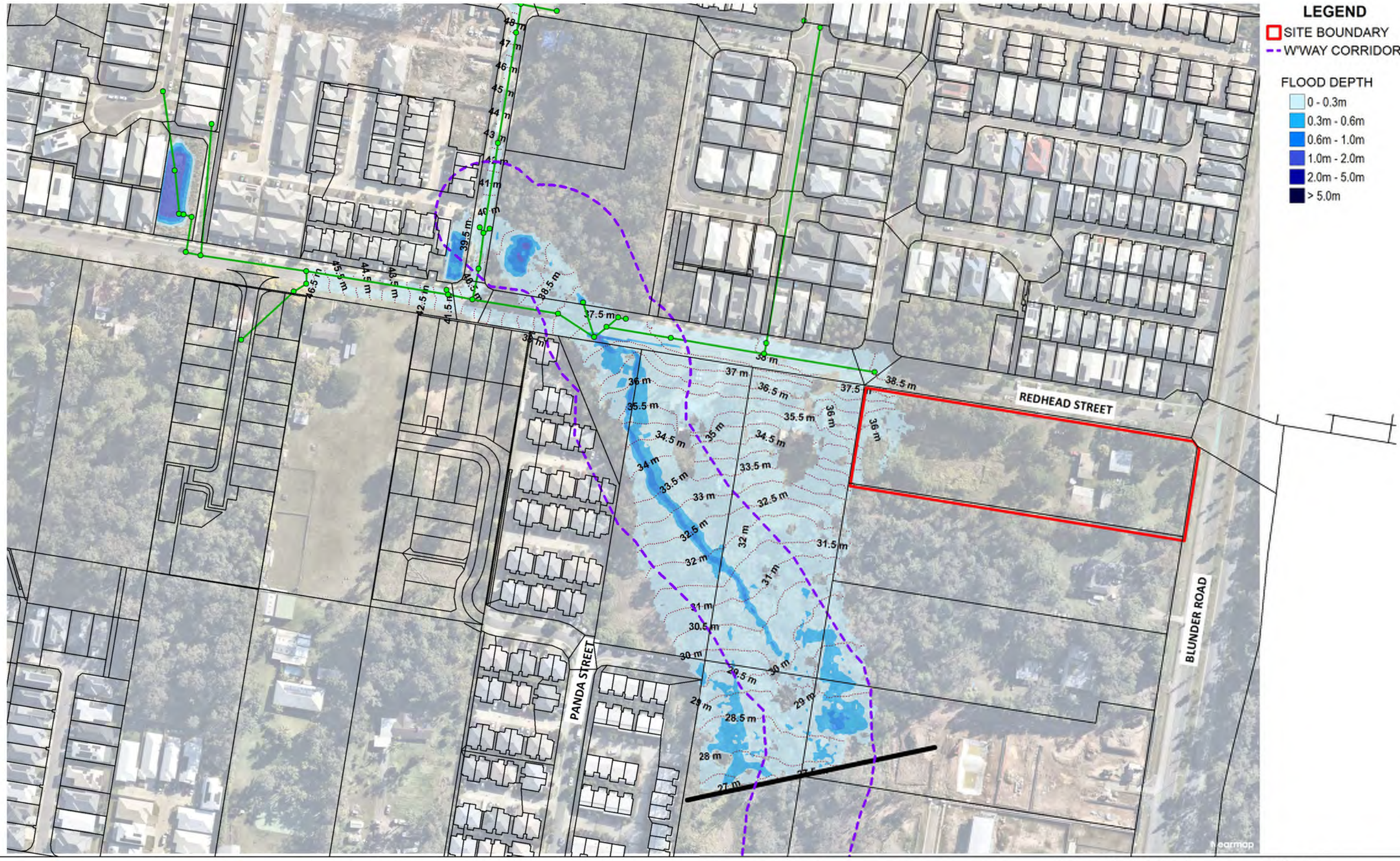
AUSBUILD PTY LTD

JFOP URBAN CONSULTANTS

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS106	A

SCALE: 1:2000 @ A3

DATE: 13/11/2025



1% AEP FLOOD DEPTH - PRE-DEVELOPMENT SCENARIO

8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

URBAN CONSULTANTS

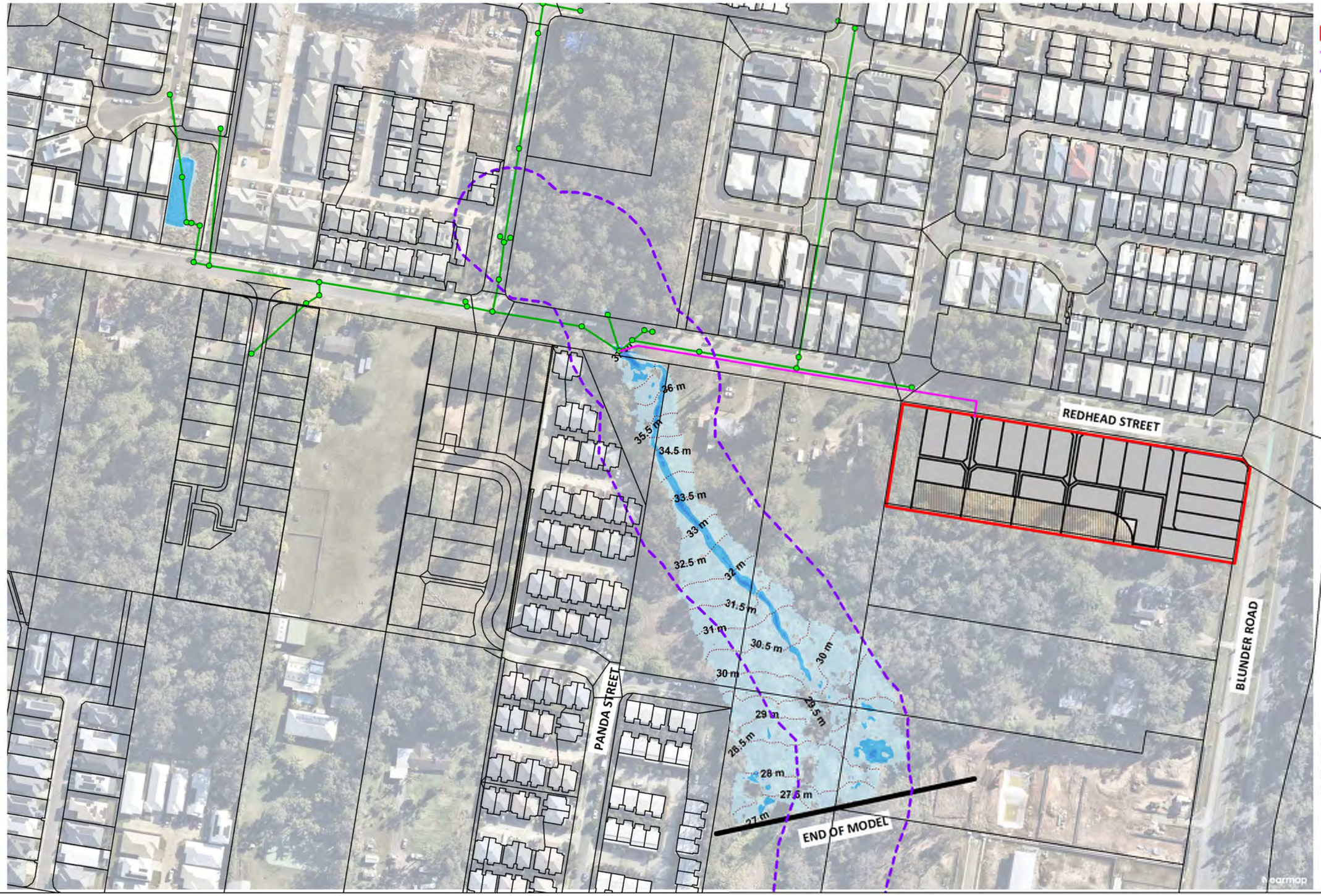
DRAWING N0.	ISSUE
B4687EA2_DA3_GIS107	A

SCALE: 1:2000 @ A3

DATE: 13/11/2025

APPENDIX F

POST-DEVELOPMENT FLOOD DEPTH PLANS



NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

63% AEP FLOOD DEPTH - POST-DEVELOPMENT SCENARIO

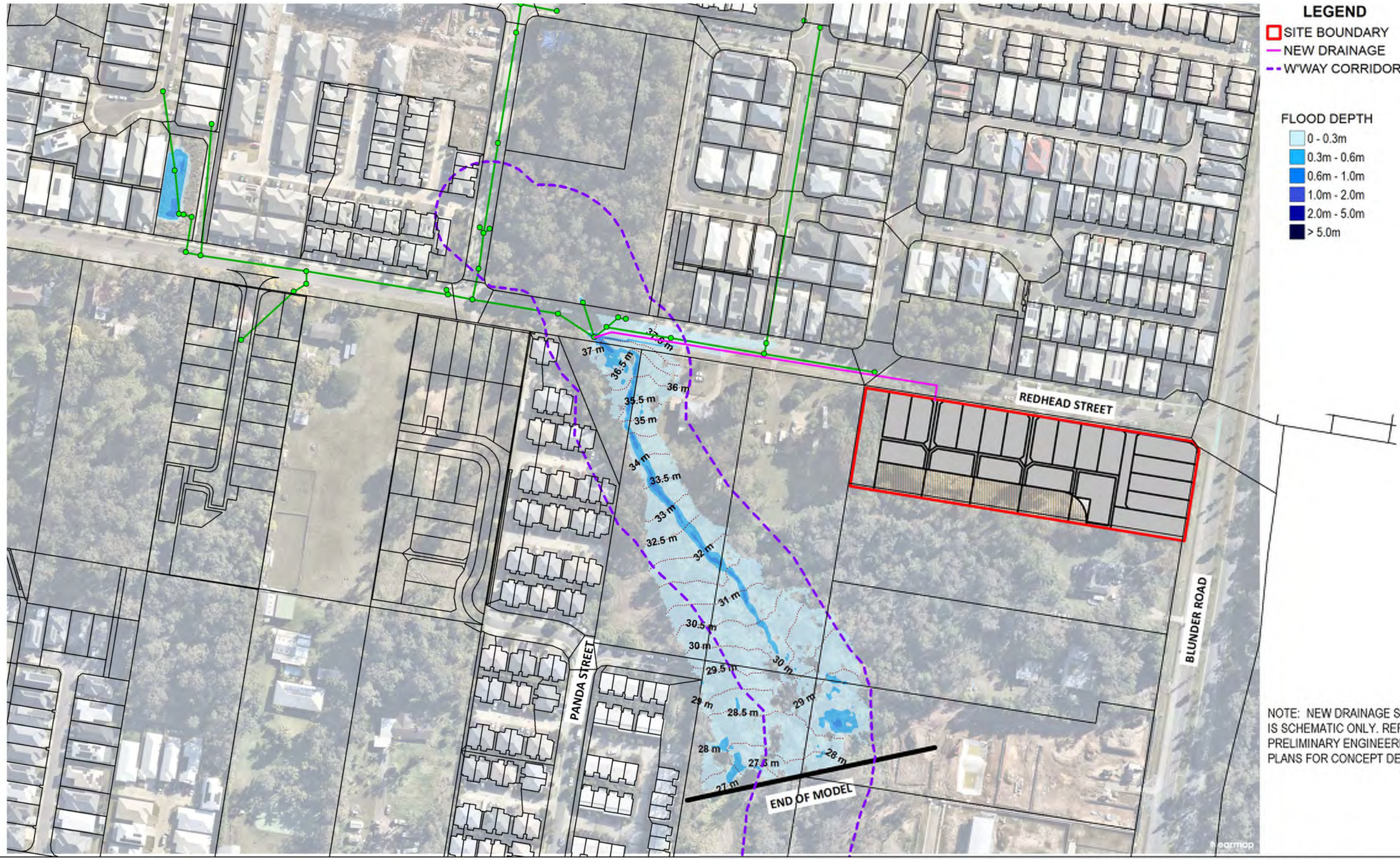
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS201	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

URBAN CONSULTANTS

39% AEP FLOOD DEPTH - POST-DEVELOPMENT SCENARIO

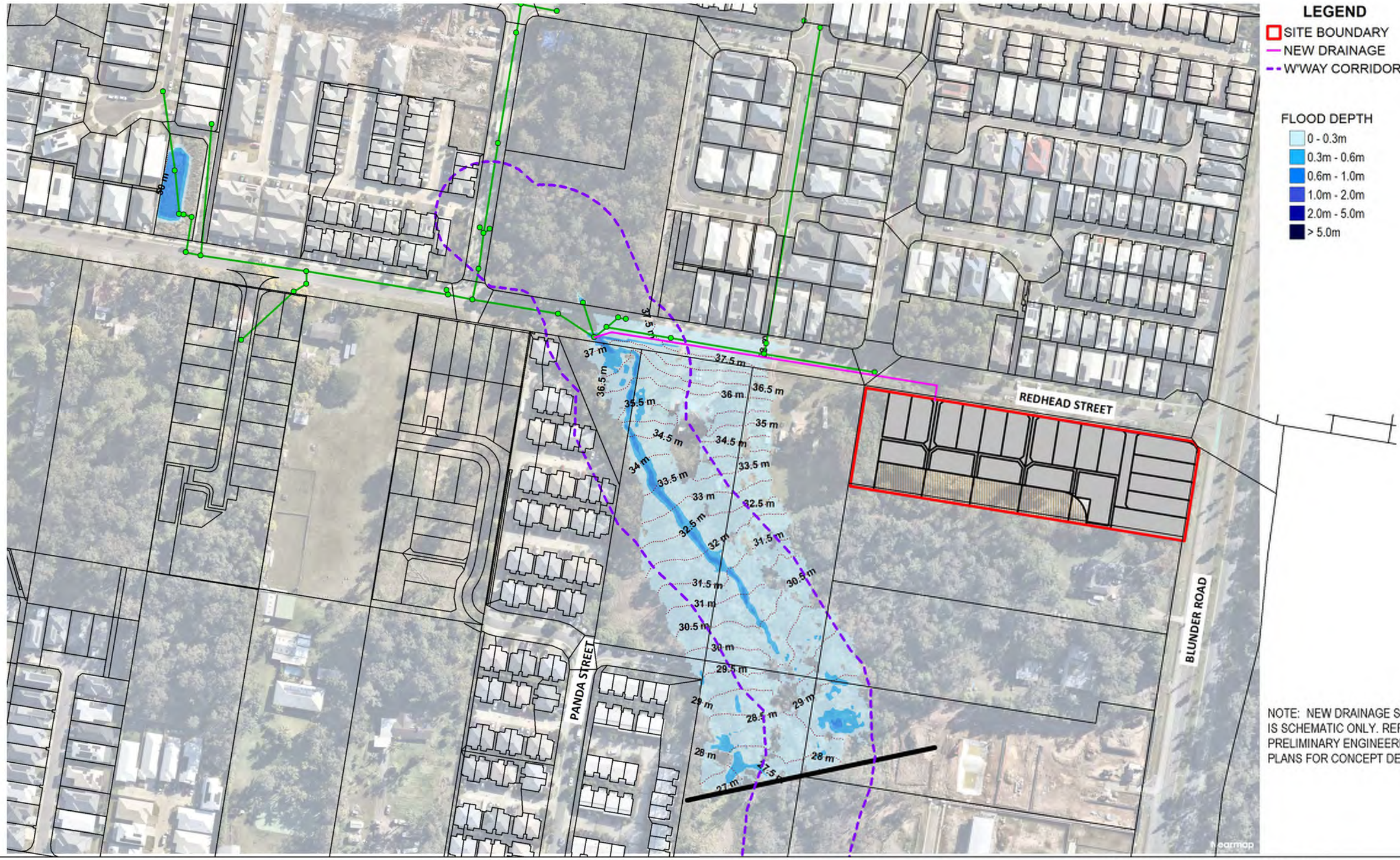
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS202	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



URBAN CONSULTANTS

18% AEP FLOOD DEPTH - POST-DEVELOPMENT SCENARIO

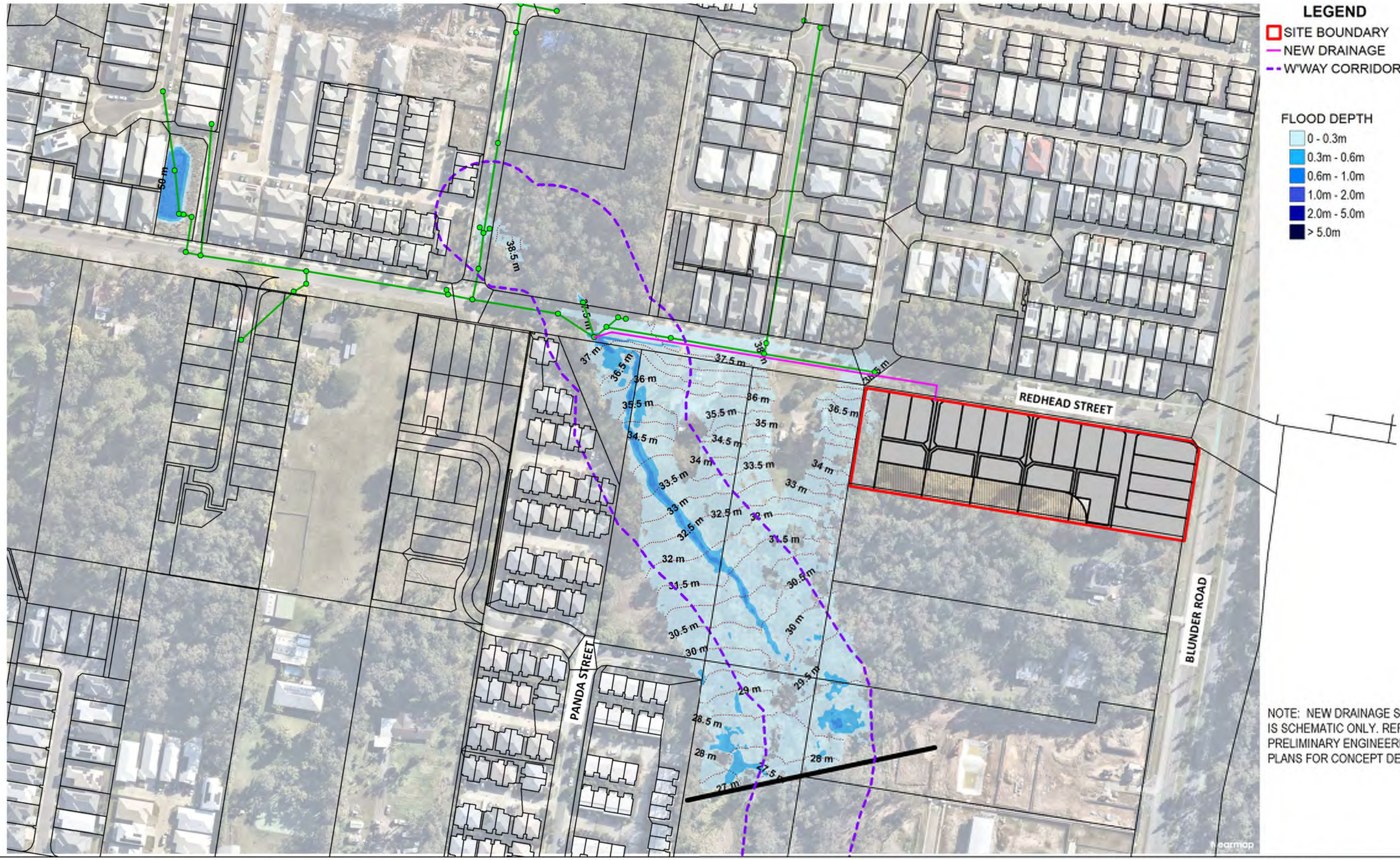
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS203	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



URBAN CONSULTANTS

10% AEP FLOOD DEPTH - POST-DEVELOPMENT SCENARIO

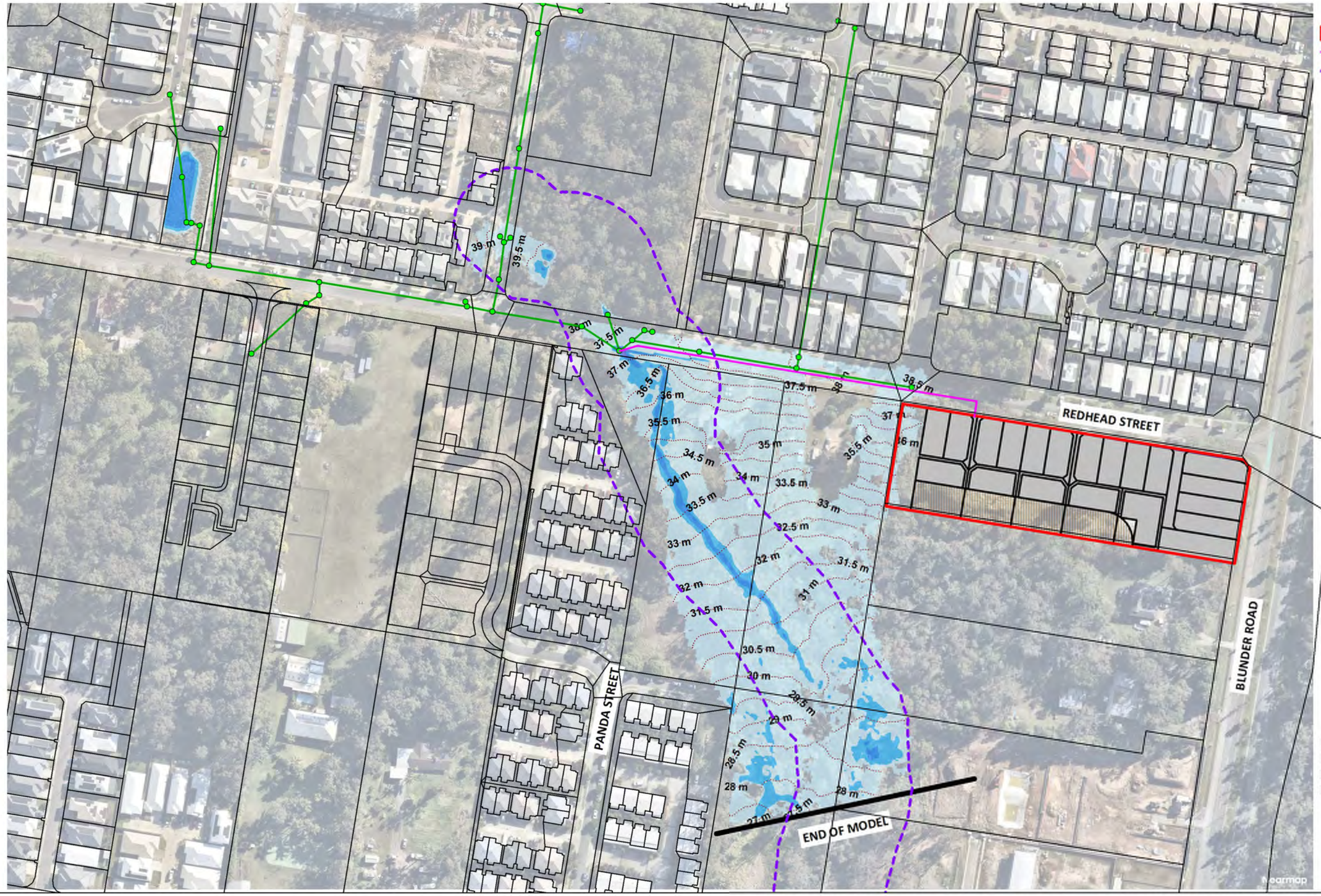
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS204	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

URBAN CONSULTANTS

5% AEP FLOOD DEPTH - POST-DEVELOPMENT SCENARIO

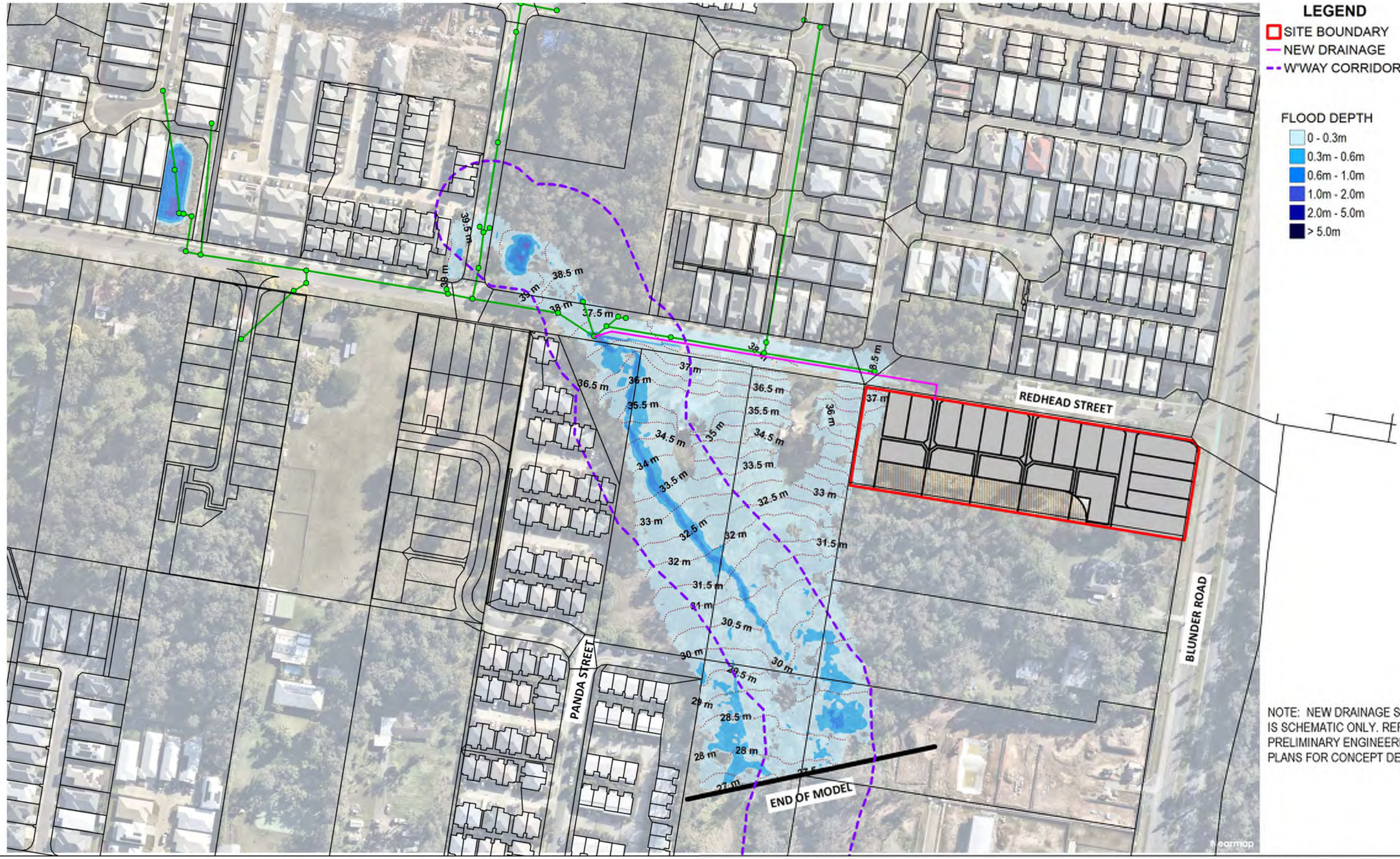
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS205	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

URBAN CONSULTANTS

2% AEP FLOOD DEPTH - POST-DEVELOPMENT SCENARIO

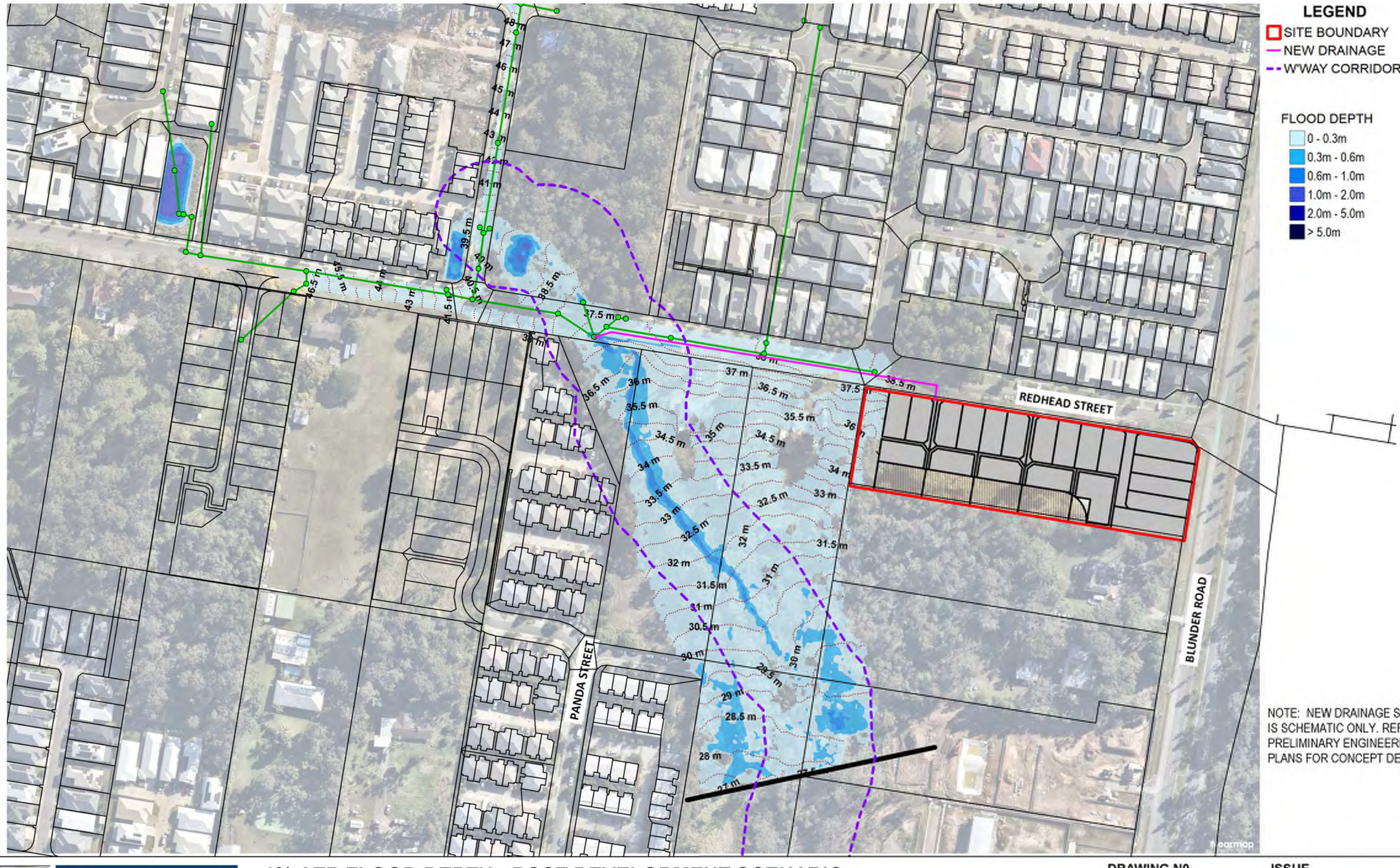
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS206	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

1% AEP FLOOD DEPTH - POST-DEVELOPMENT SCENARIO

8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

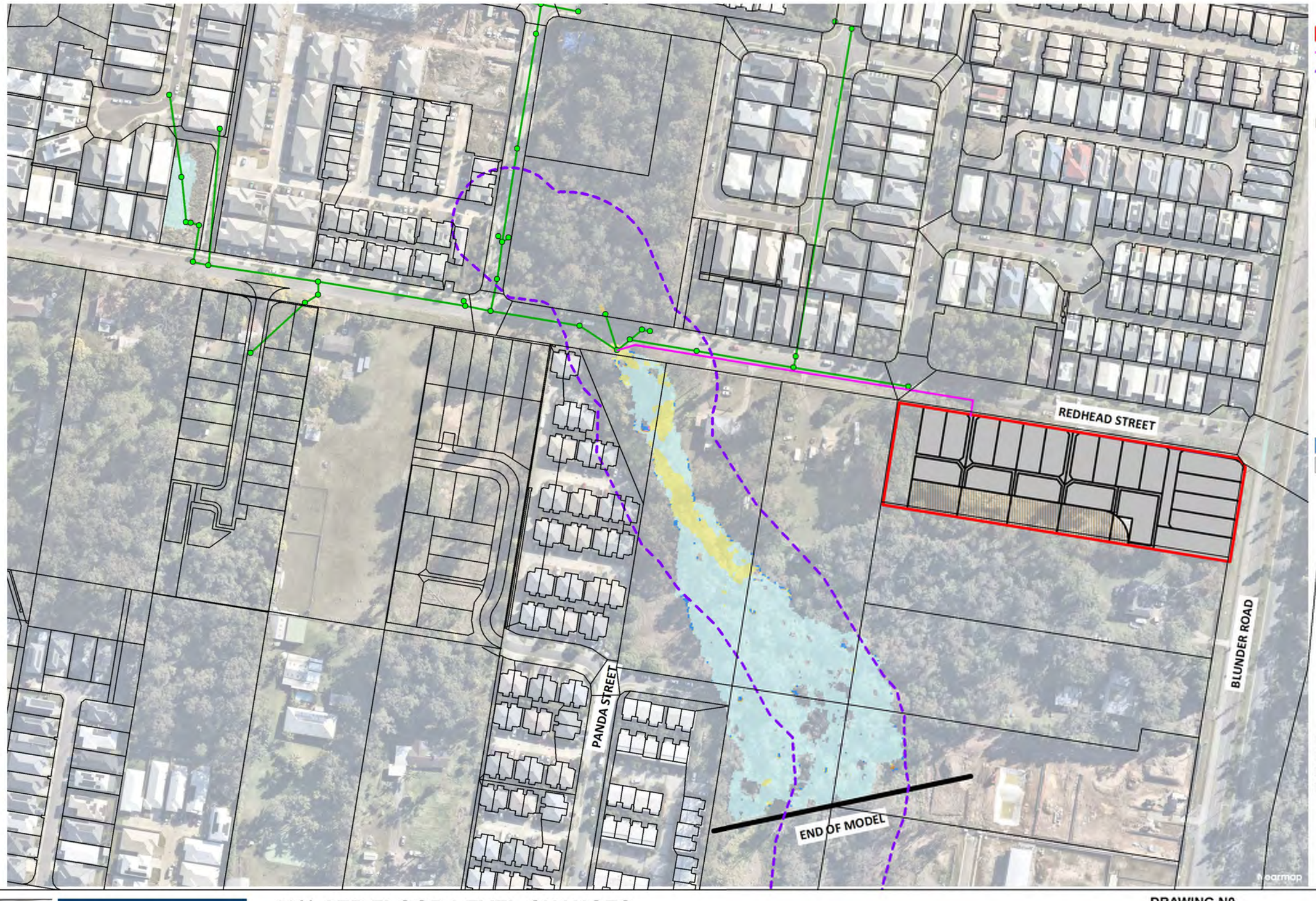
DRAWING N0.	ISSUE
B4687EA2_DA3_GIS207	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025

APPENDIX G

FLOOD IMPACT PLANS (LEVEL, VELOCITY & HAZARD)



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

FLOOD LEVEL CHANGES

- > 300mm
- 250 to 300mm
- 150 to 250mm
- 100 to 150mm
- 50 to 100mm
- 30 to 50mm
- 20 to 30mm
- 10 to 20mm
- Null (+/- 10mm)
- -20 to -10mm
- -50 to -20mm
- < -50mm

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

63% AEP FLOOD LEVEL CHANGES

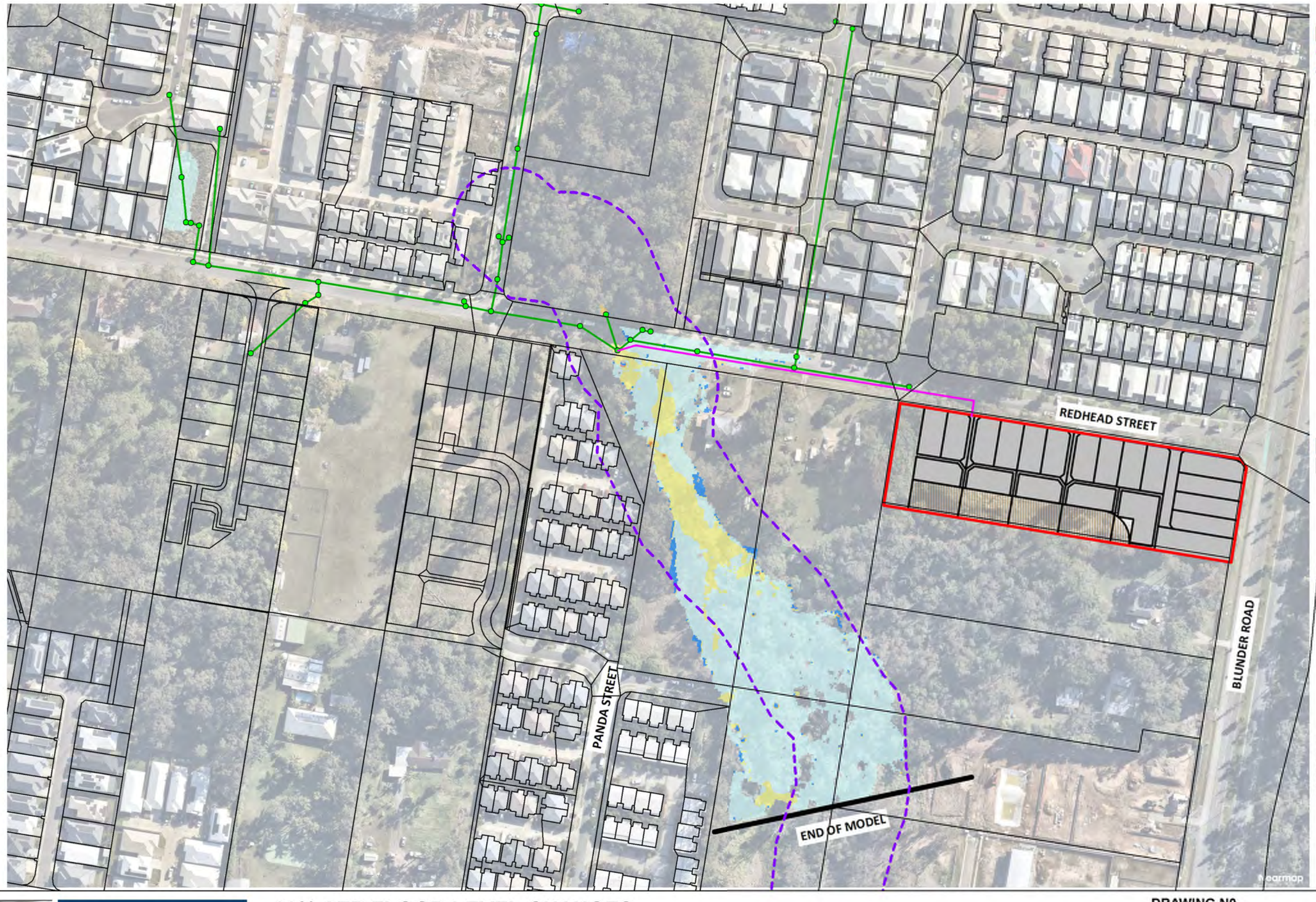
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS301	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

FLOOD LEVEL CHANGES

- > 300mm
- 250 to 300mm
- 150 to 250mm
- 100 to 150mm
- 50 to 100mm
- 30 to 50mm
- 20 to 30mm
- 10 to 20mm
- Null (+/- 10mm)
- -20 to -10mm
- -50 to -20mm
- < -50mm

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

39% AEP FLOOD LEVEL CHANGES

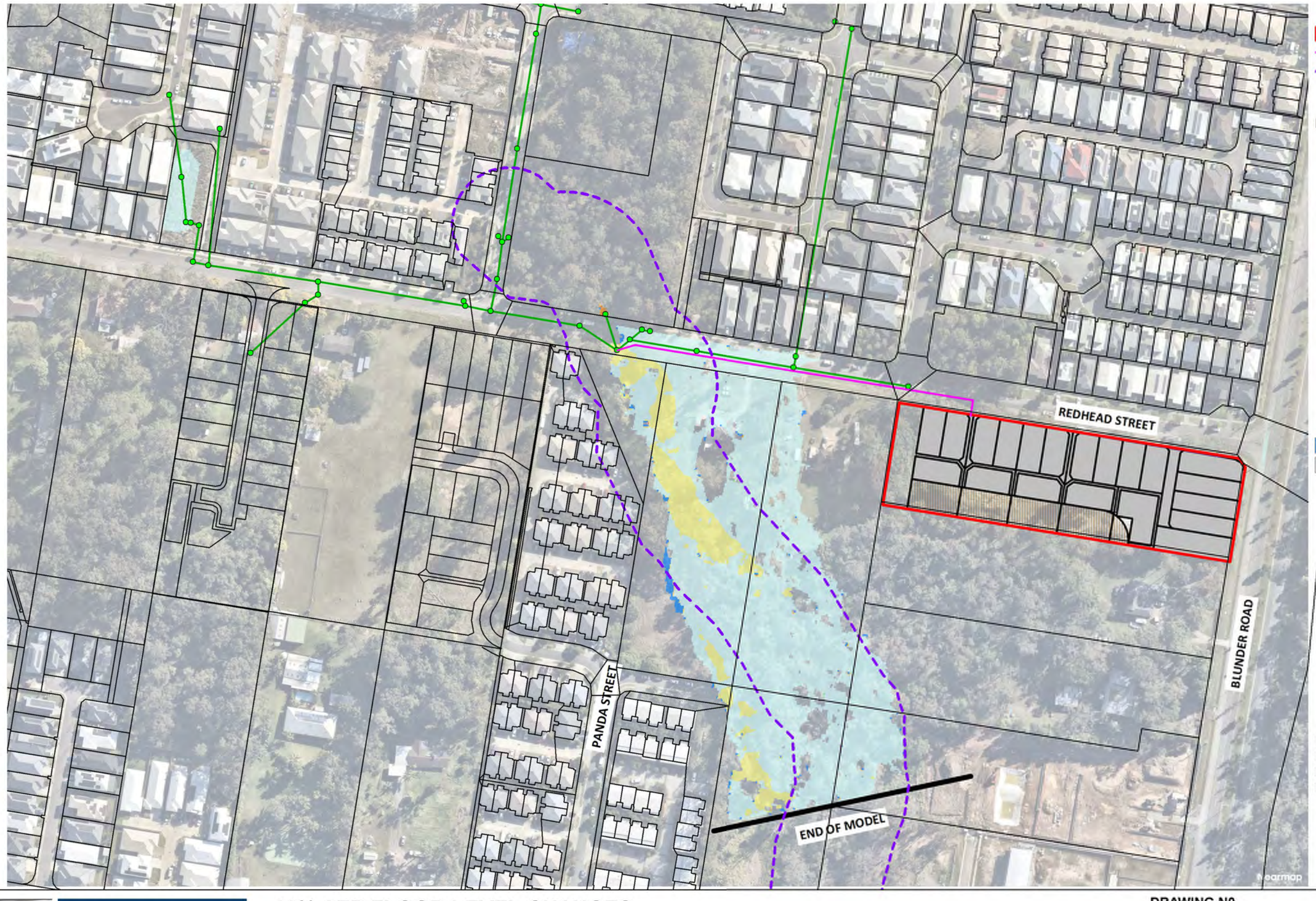
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS302	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

FLOOD LEVEL CHANGES

- > 300mm
- 250 to 300mm
- 150 to 250mm
- 100 to 150mm
- 50 to 100mm
- 30 to 50mm
- 20 to 30mm
- 10 to 20mm
- Null (+/- 10mm)
- -20 to -10mm
- -50 to -20mm
- < -50mm

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

18% AEP FLOOD LEVEL CHANGES

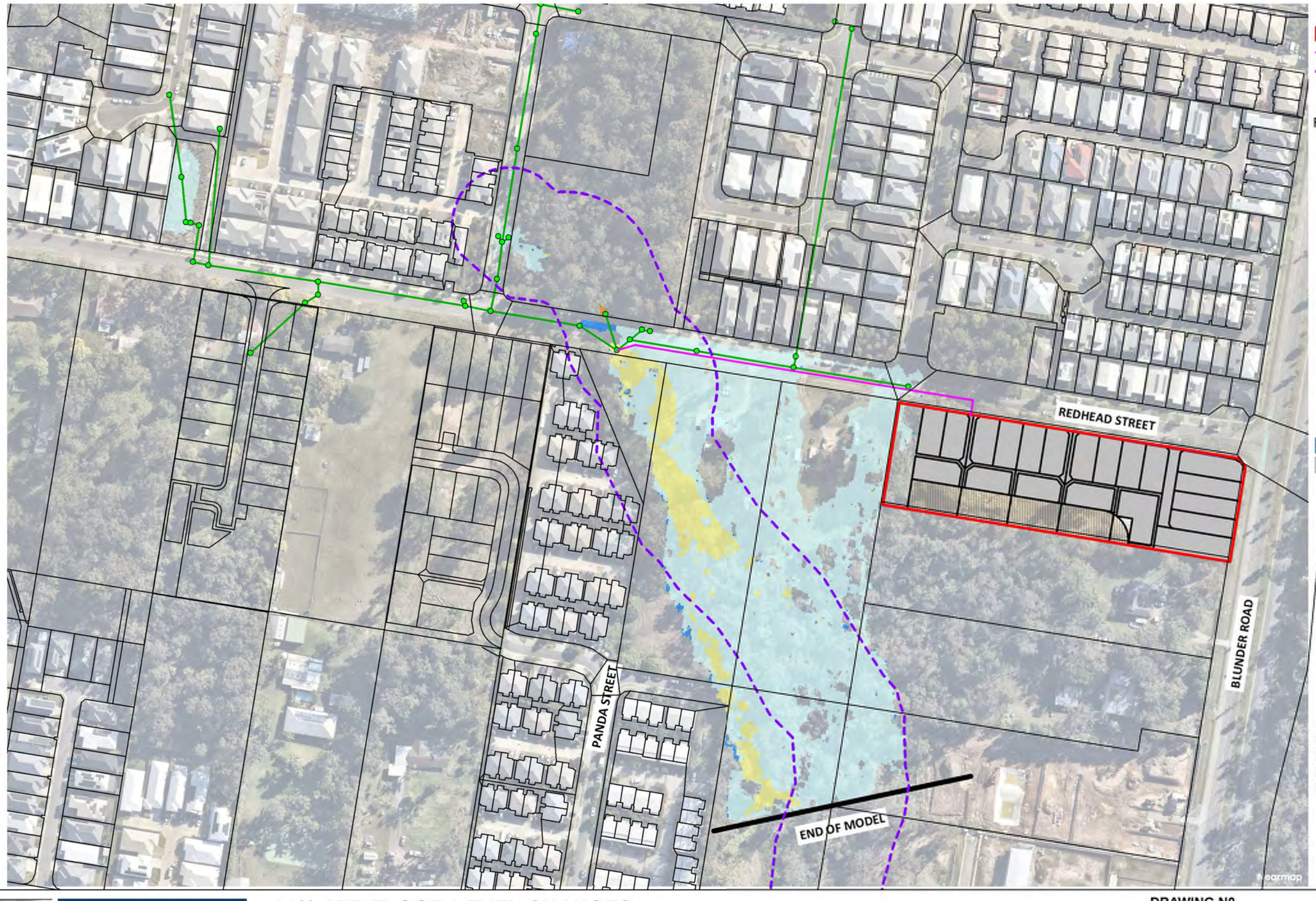
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS303	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

FLOOD LEVEL CHANGES

- > 300mm
- 250 to 300mm
- 150 to 250mm
- 100 to 150mm
- 50 to 100mm
- 30 to 50mm
- 20 to 30mm
- 10 to 20mm
- Null (+/- 10mm)
- -20 to -10mm
- -50 to -20mm
- < -50mm

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

10% AEP FLOOD LEVEL CHANGES

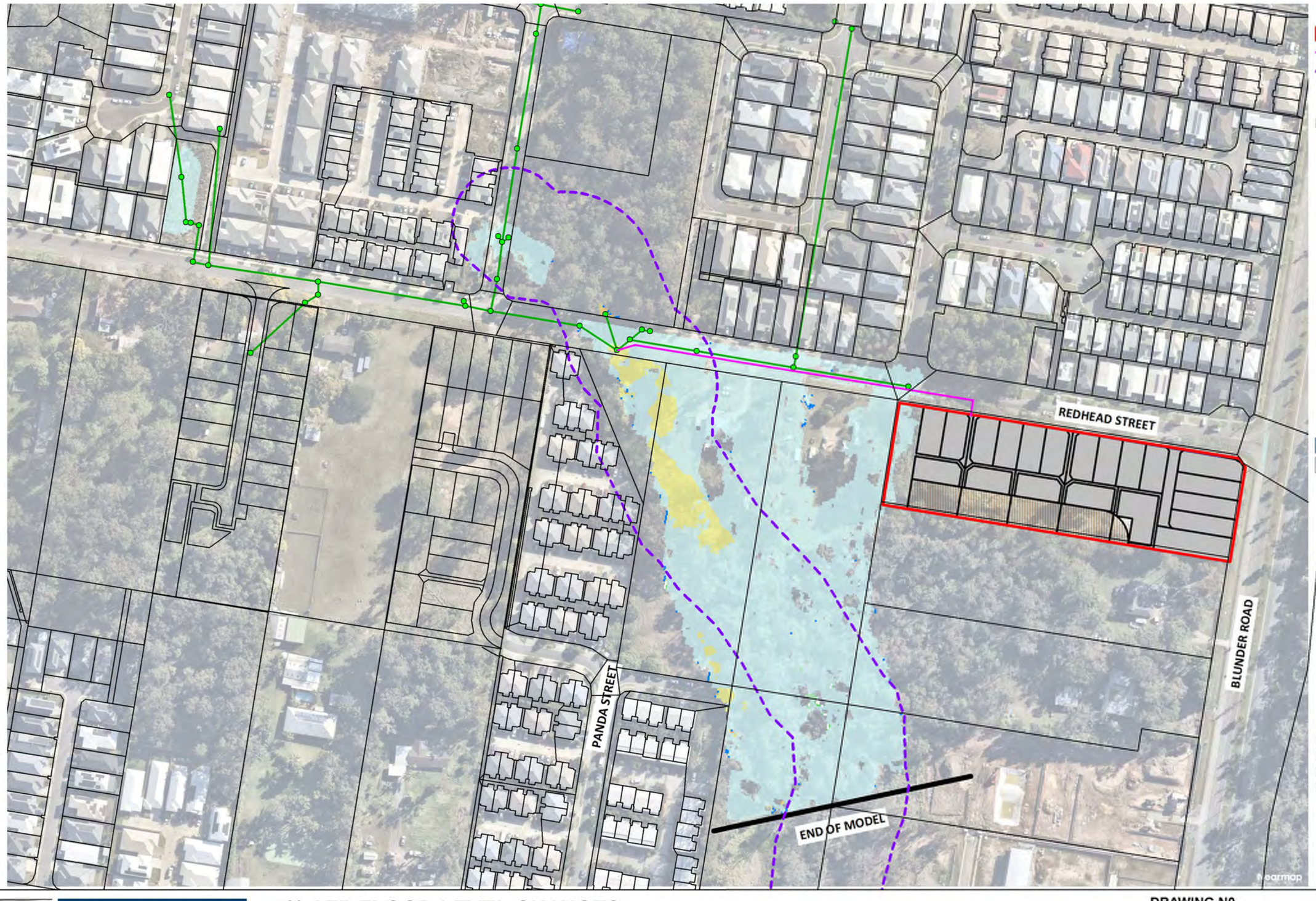
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS304	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

FLOOD LEVEL CHANGES

- > 300mm
- 250 to 300mm
- 150 to 250mm
- 100 to 150mm
- 50 to 100mm
- 30 to 50mm
- 20 to 30mm
- 10 to 20mm
- Null (+/- 10mm)
- -20 to -10mm
- -50 to -20mm
- < -50mm

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

5% AEP FLOOD LEVEL CHANGES

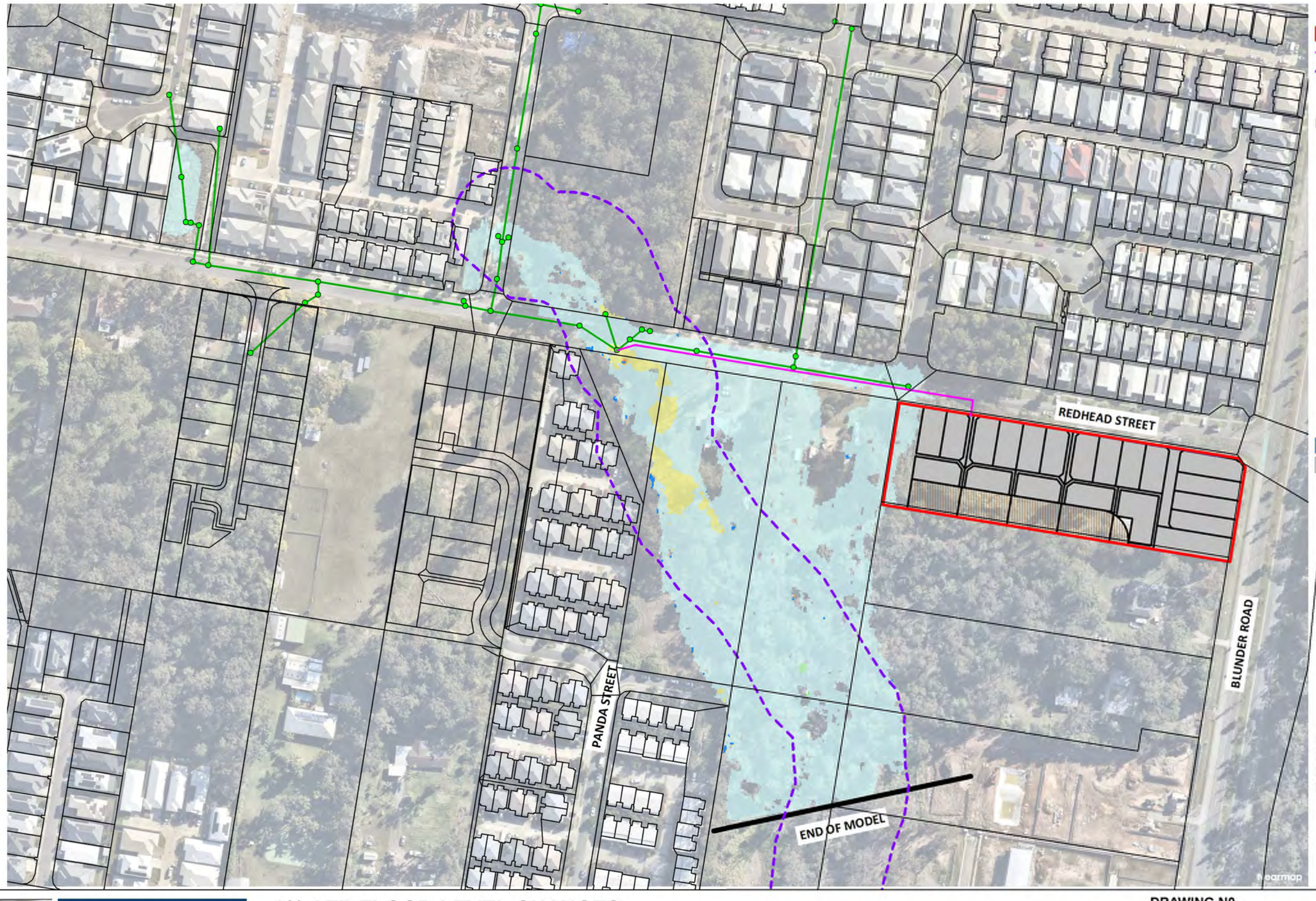
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS305	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

FLOOD LEVEL CHANGES

- > 300mm
- 250 to 300mm
- 150 to 250mm
- 100 to 150mm
- 50 to 100mm
- 30 to 50mm
- 20 to 30mm
- 10 to 20mm
- Null (+/- 10mm)
- -20 to -10mm
- -50 to -20mm
- < -50mm

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

2% AEP FLOOD LEVEL CHANGES

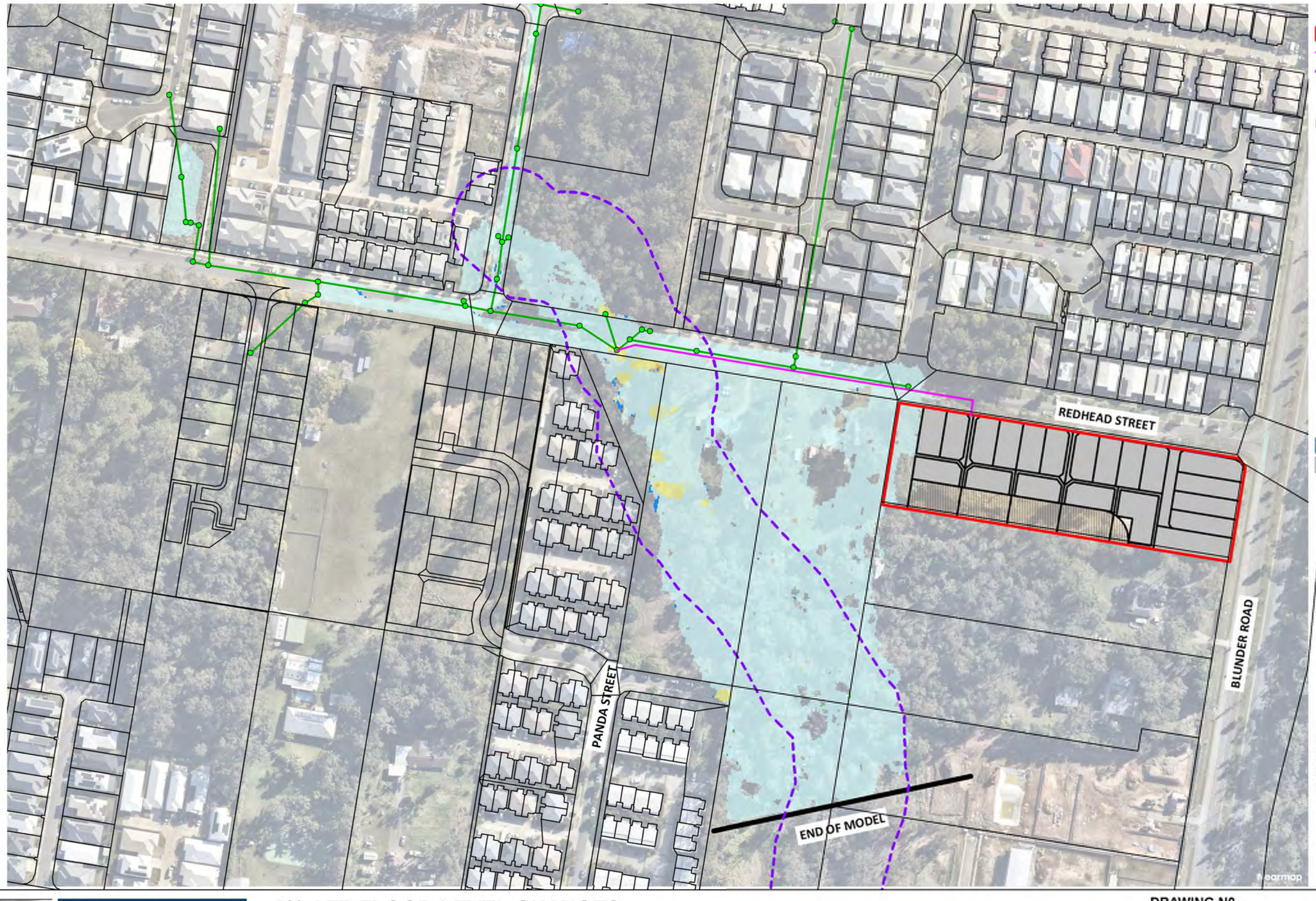
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS306	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

FLOOD LEVEL CHANGES

- > 300mm
- 250 to 300mm
- 150 to 250mm
- 100 to 150mm
- 50 to 100mm
- 30 to 50mm
- 20 to 30mm
- 10 to 20mm
- Null (+/- 10mm)
- -20 to -10mm
- -50 to -20mm
- < -50mm

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

1% AEP FLOOD LEVEL CHANGES

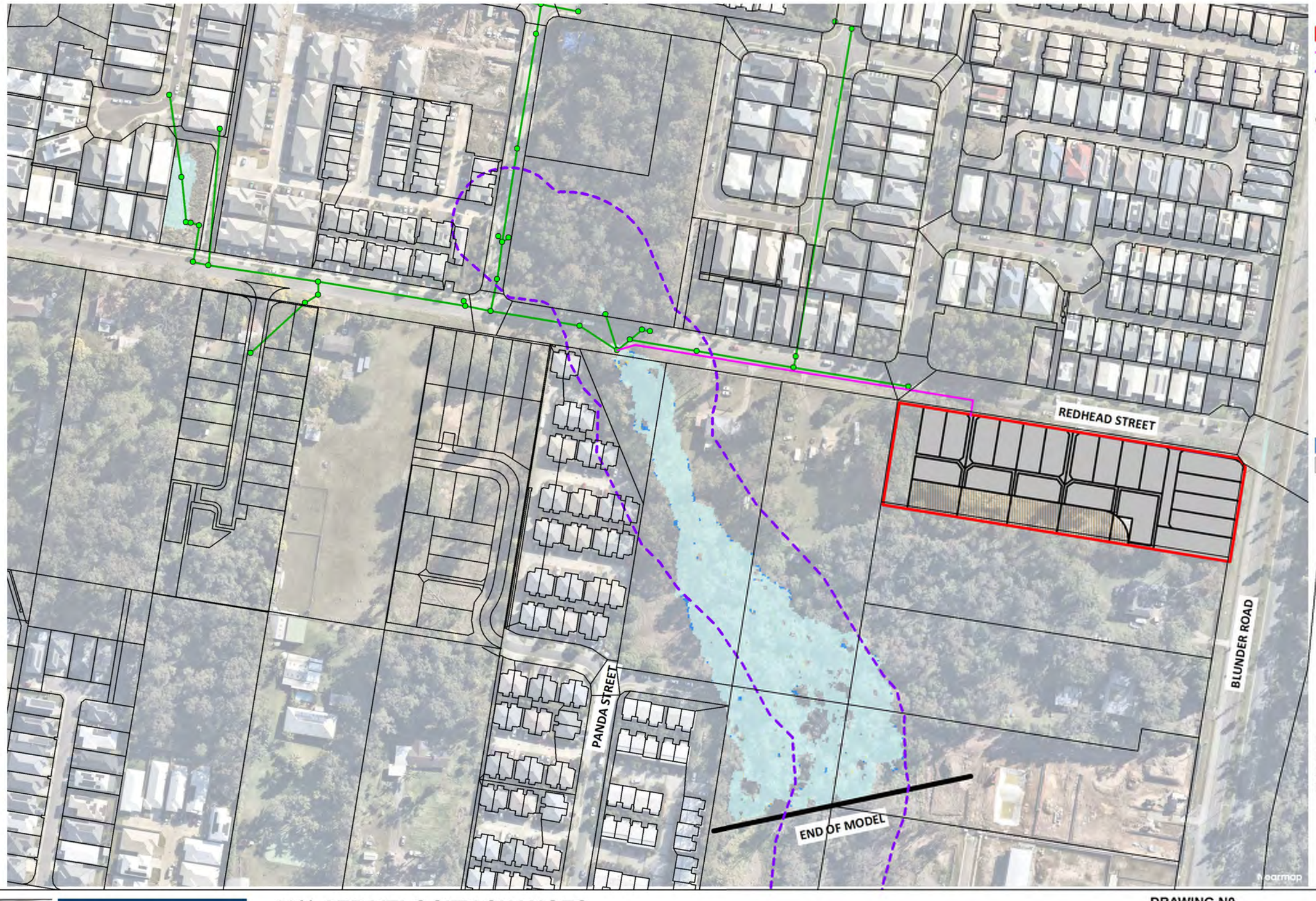
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS307	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

SITE BOUNDARY
NEW DRAINAGE
W'WAY CORRIDOR

VELOCITY CHANGES

- > 2m/s
- 1 to 2m/s
- 0.5 to 1m/s
- 0.25 to 0.5m/s
- 0.1 to 0.25m/s
- Null (+/- 0.1m/s)
- -0.1 to -0.5m/s
- < -0.5m/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

63% AEP VELOCITY CHANGES

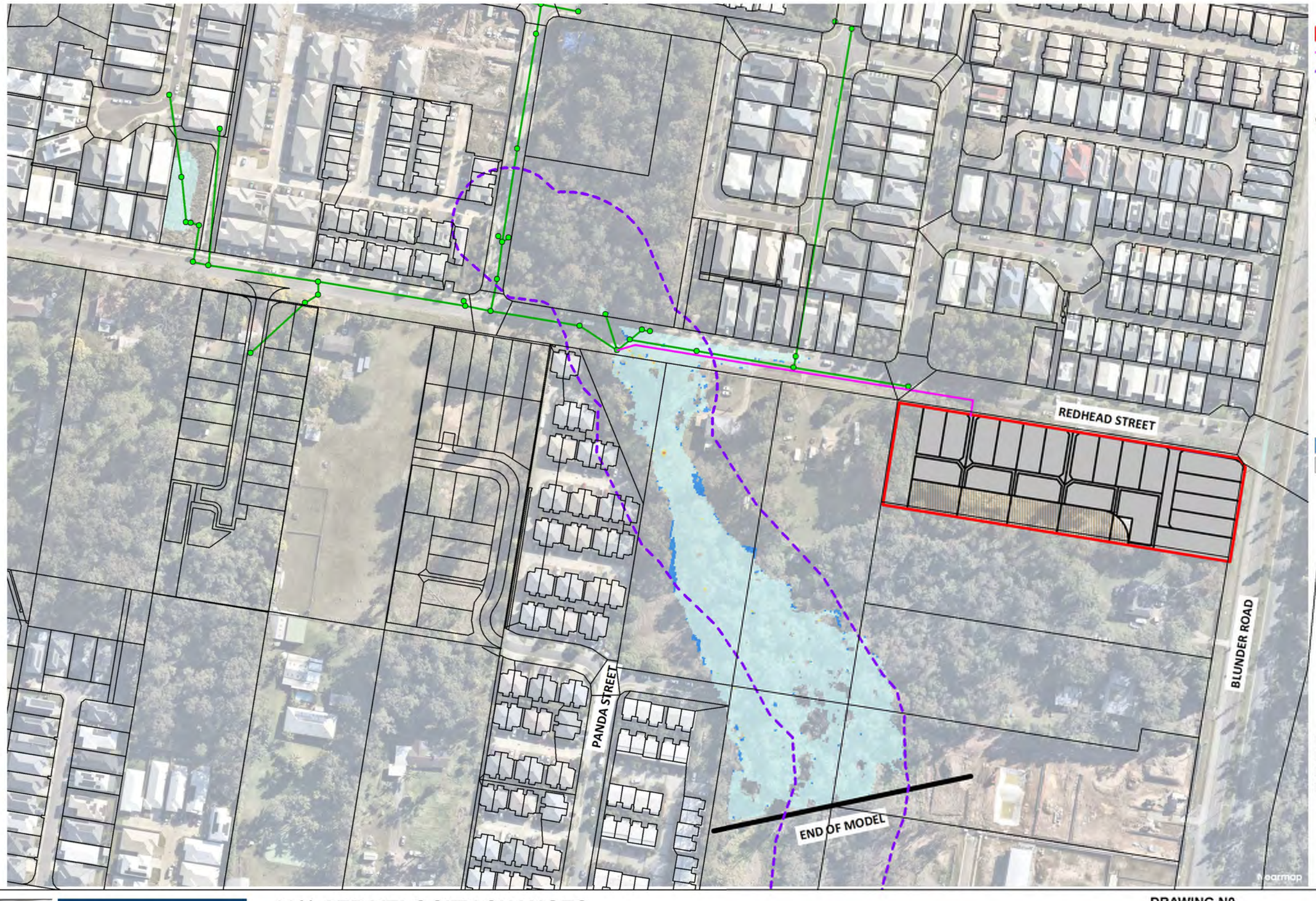
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS401	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

VELOCITY CHANGES

- > 2m/s
- 1 to 2m/s
- 0.5 to 1m/s
- 0.25 to 0.5m/s
- 0.1 to 0.25m/s
- Null (+/- 0.1m/s)
- -0.1 to -0.5m/s
- < -0.5m/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

39% AEP VELOCITY CHANGES

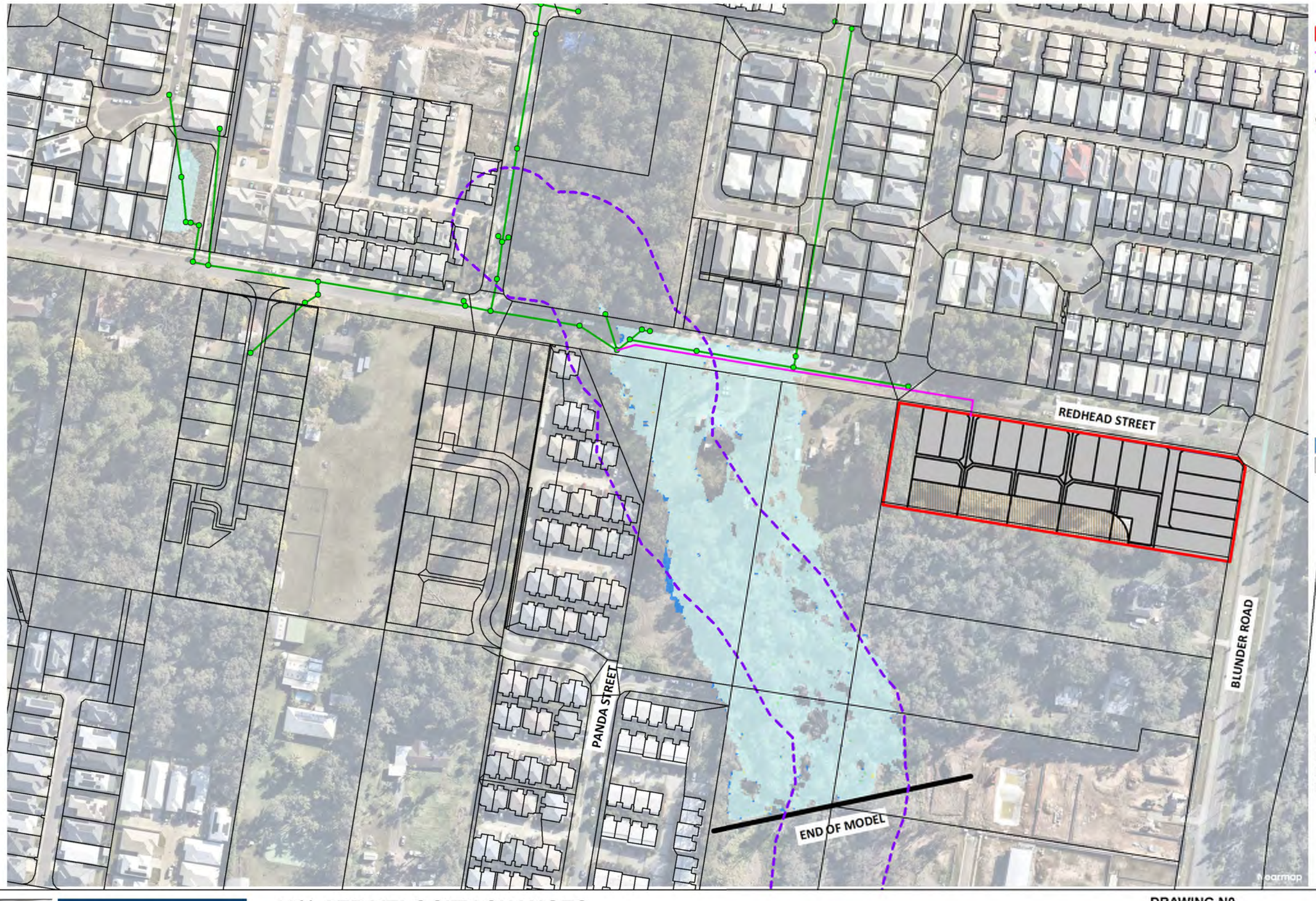
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS402	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

VELOCITY CHANGES

- > 2m/s
- 1 to 2m/s
- 0.5 to 1m/s
- 0.25 to 0.5m/s
- 0.1 to 0.25m/s
- Null (+/- 0.1m/s)
- -0.1 to -0.5m/s
- < -0.5m/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

18% AEP VELOCITY CHANGES

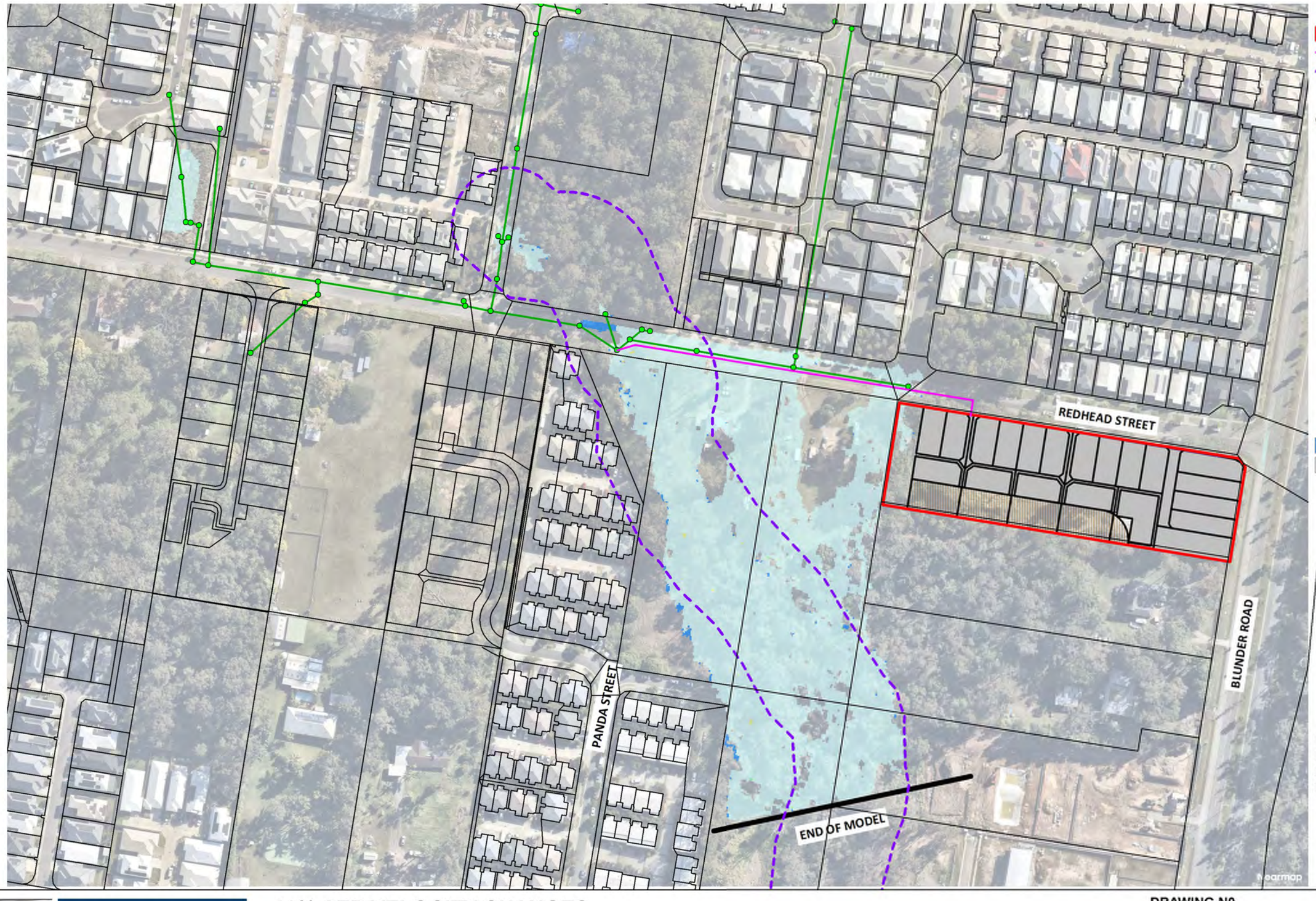
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS403	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

VELOCITY CHANGES

- > 2m/s
- 1 to 2m/s
- 0.5 to 1m/s
- 0.25 to 0.5m/s
- 0.1 to 0.25m/s
- Null (+/- 0.1m/s)
- -0.1 to -0.5m/s
- < -0.5m/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

10% AEP VELOCITY CHANGES

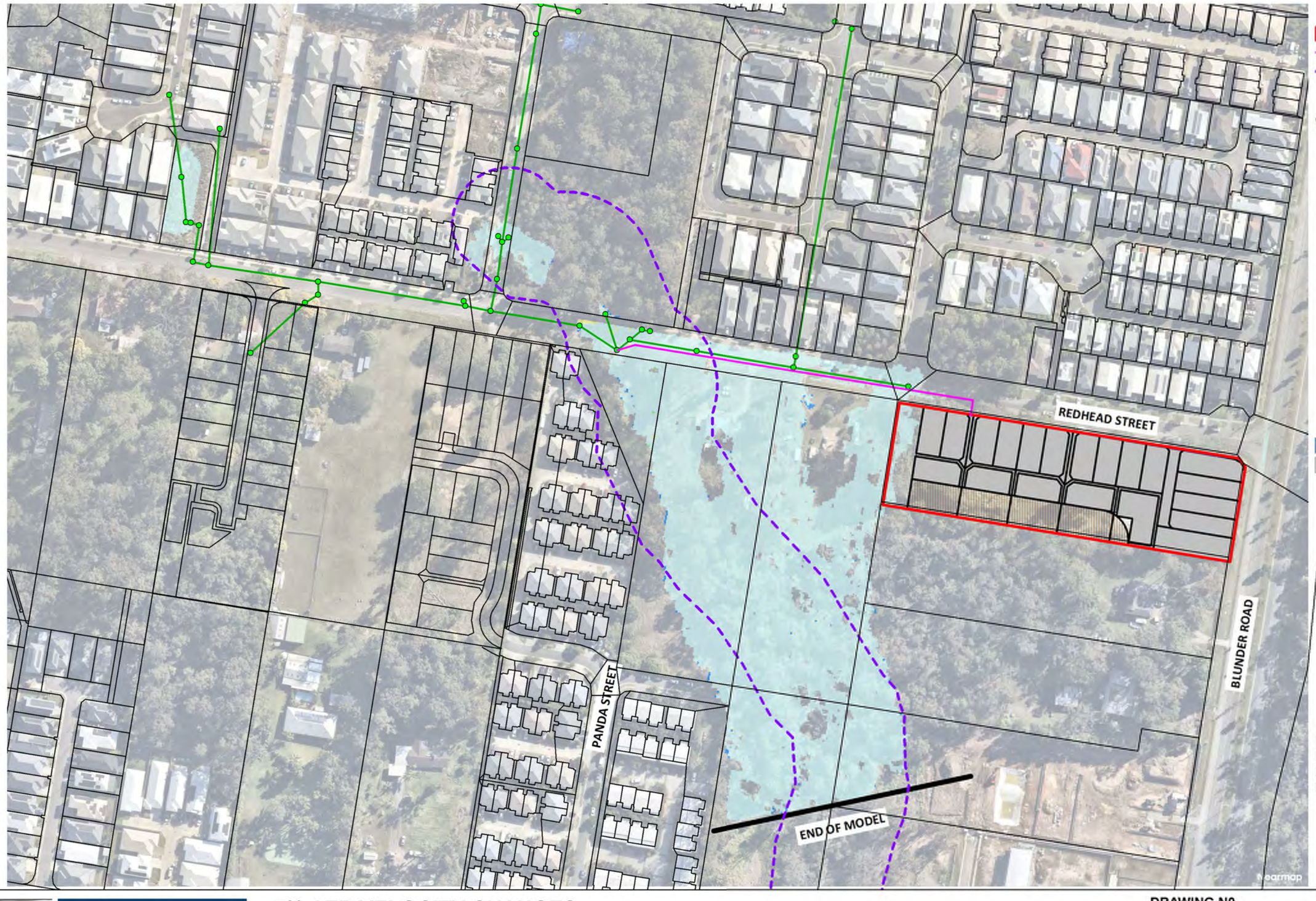
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS404	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

VELOCITY CHANGES

- > 2m/s
- 1 to 2m/s
- 0.5 to 1m/s
- 0.25 to 0.5m/s
- 0.1 to 0.25m/s
- Null (+/- 0.1m/s)
- -0.1 to -0.5m/s
- < -0.5m/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

5% AEP VELOCITY CHANGES

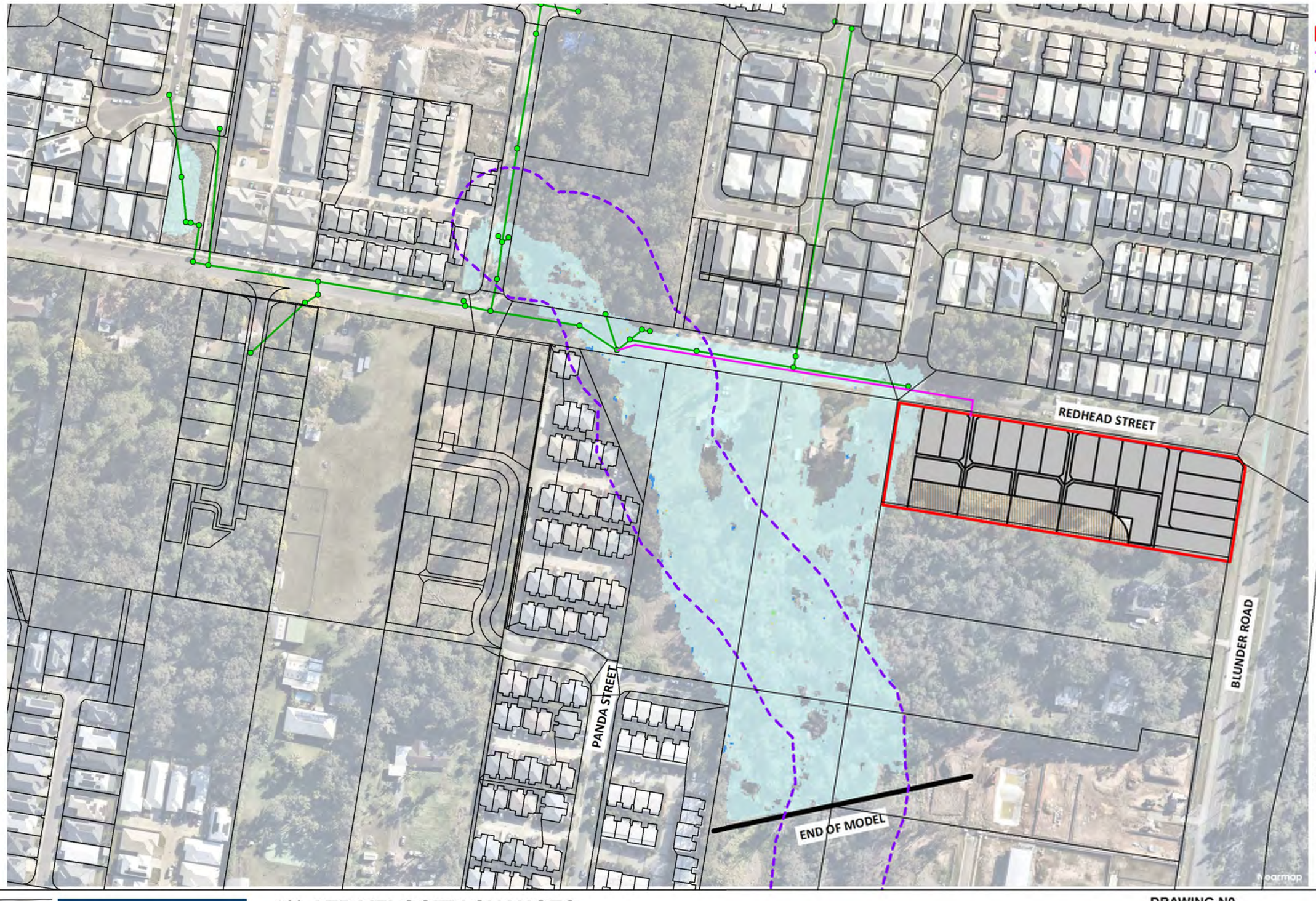
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS405	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

SITE BOUNDARY
NEW DRAINAGE
W'WAY CORRIDOR

VELOCITY CHANGES

- > 2m/s
- 1 to 2m/s
- 0.5 to 1m/s
- 0.25 to 0.5m/s
- 0.1 to 0.25m/s
- Null (+/- 0.1m/s)
- -0.1 to -0.5m/s
- < -0.5m/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

2% AEP VELOCITY CHANGES

8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
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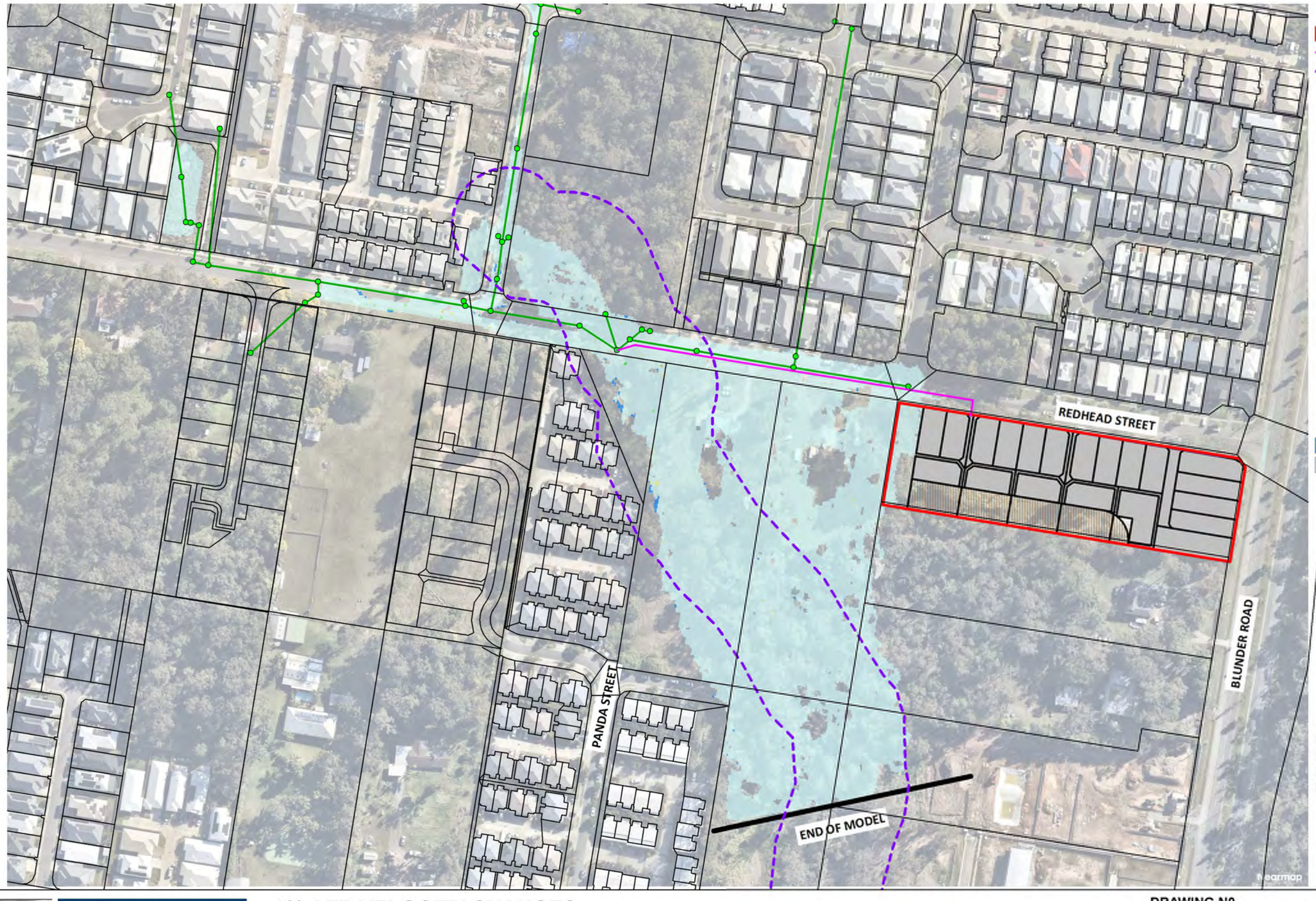
SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

SITE BOUNDARY
NEW DRAINAGE
W'WAY CORRIDOR

VELOCITY CHANGES

- > 2m/s
- 1 to 2m/s
- 0.5 to 1m/s
- 0.25 to 0.5m/s
- 0.1 to 0.25m/s
- Null (+/- 0.1m/s)
- -0.1 to -0.5m/s
- < -0.5m/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

1% AEP VELOCITY CHANGES

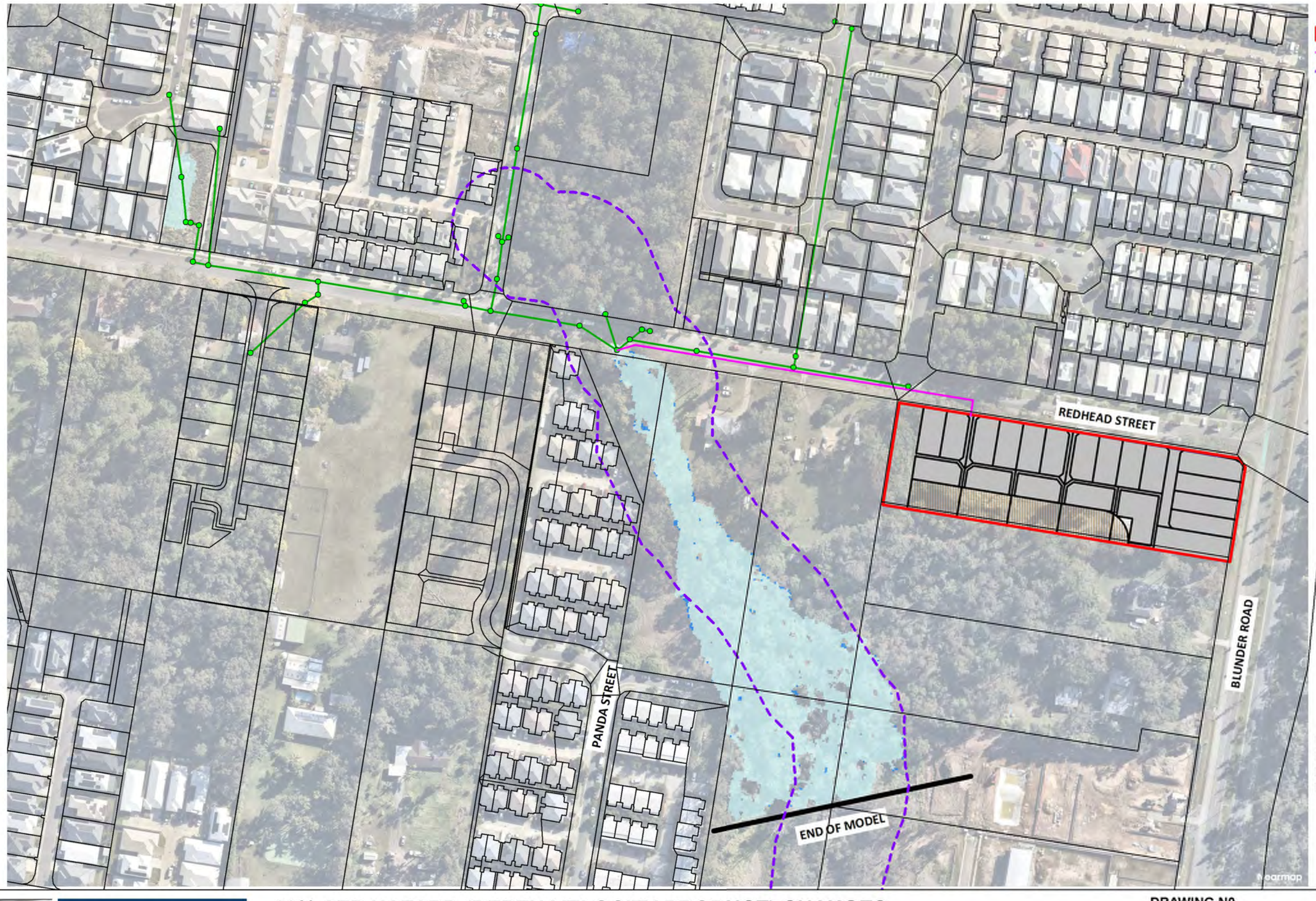
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS407	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

HAZARD CHANGES

- > 2m²/s
- 1 to 2m²/s
- 0.5 to 1m²/s
- 0.25 to 0.5m²/s
- 0.1 to 0.25m²/s
- Null (+/- 0.1m²/s)
- -0.1 to -0.5m²/s
- < -0.5m²/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

63% AEP HAZARD (DEPTH-VELOCITY PRODUCT) CHANGES

8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
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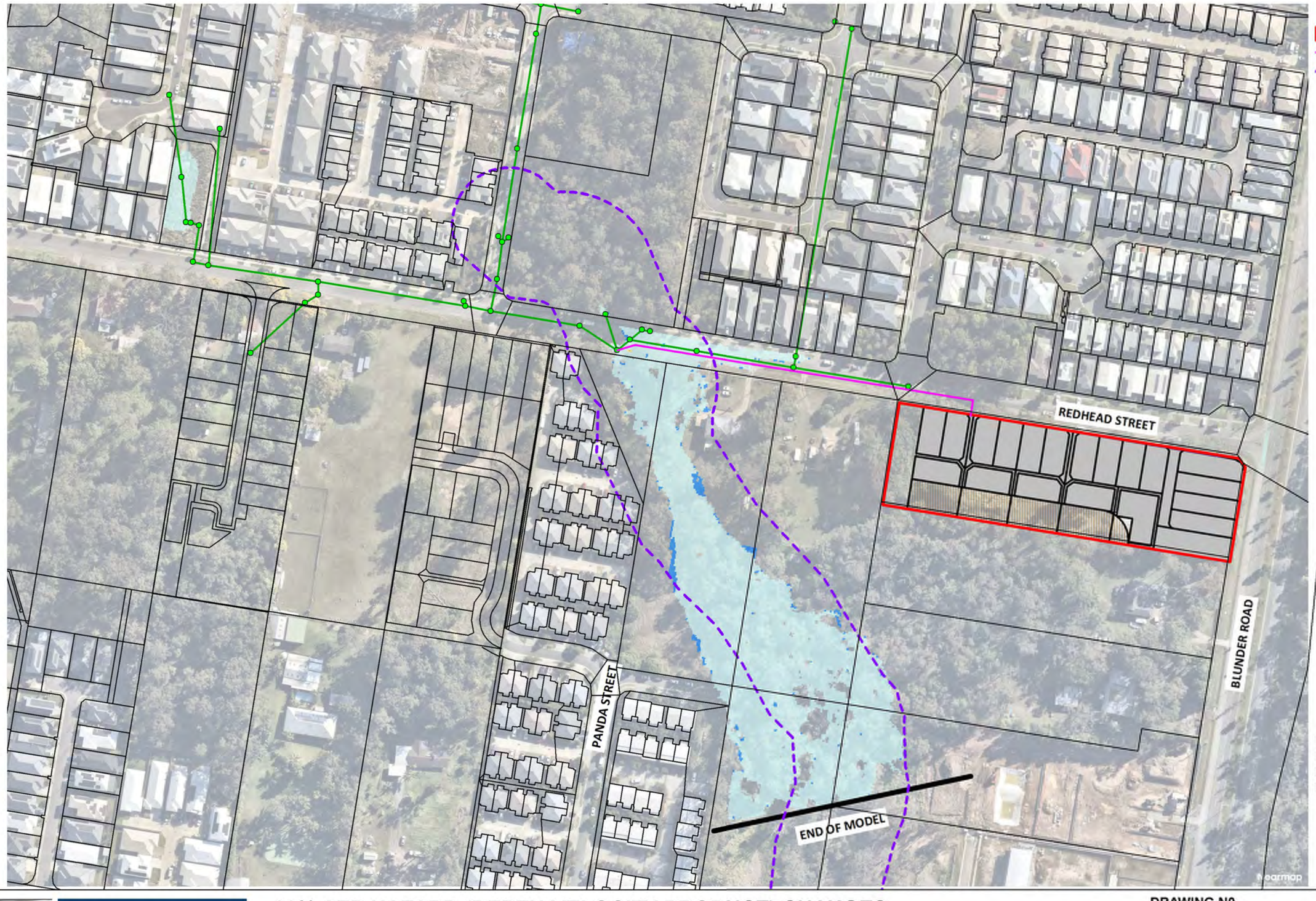
SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

HAZARD CHANGES

- > 2m²/s
- 1 to 2m²/s
- 0.5 to 1m²/s
- 0.25 to 0.5m²/s
- 0.1 to 0.25m²/s
- Null (+/- 0.1m²/s)
- -0.1 to -0.5m²/s
- < -0.5m²/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

39% AEP HAZARD (DEPTH-VELOCITY PRODUCT) CHANGES

8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
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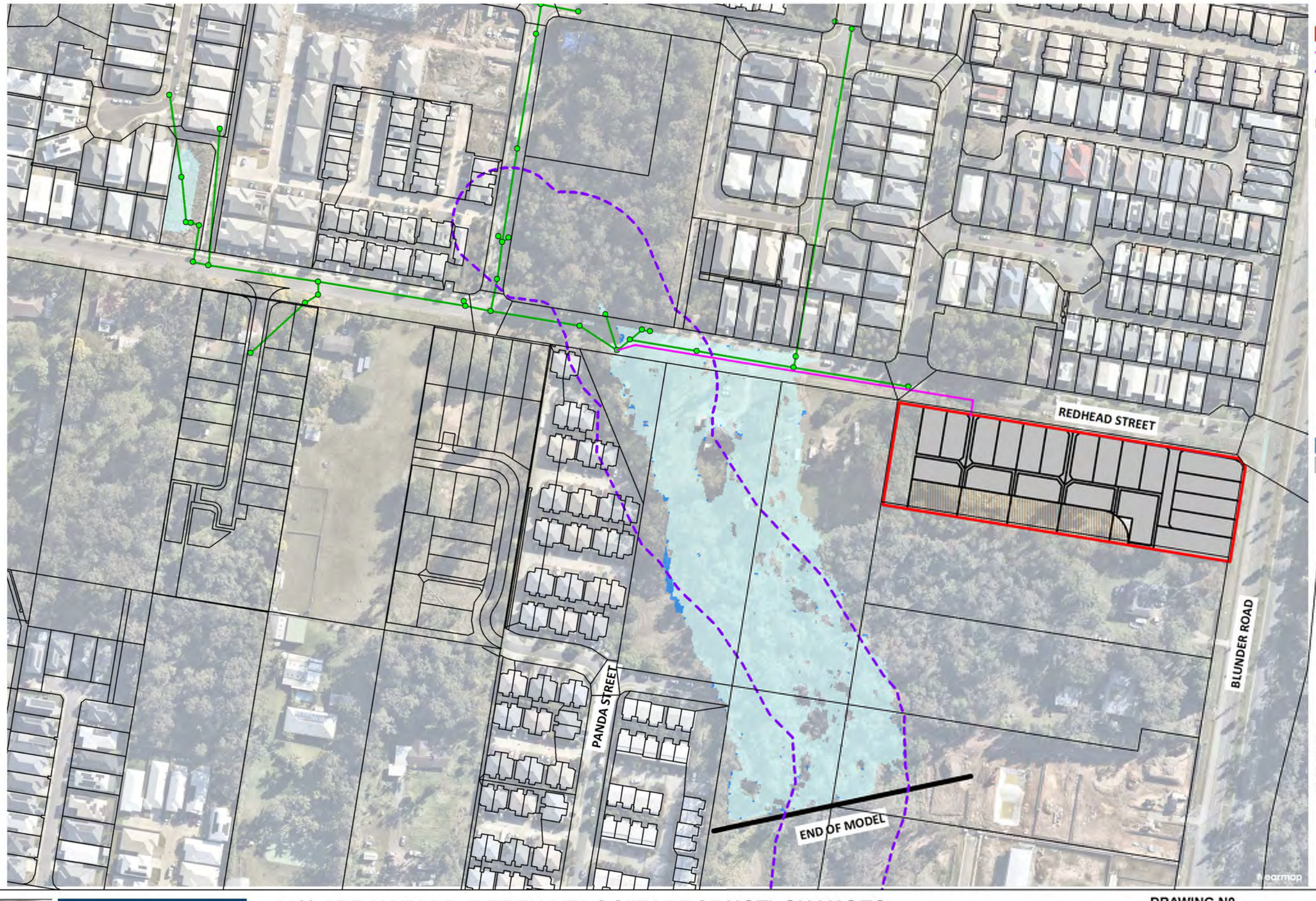
SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

SITE BOUNDARY
NEW DRAINAGE
W'WAY CORRIDOR

HAZARD CHANGES

- > 2m²/s
- 1 to 2m²/s
- 0.5 to 1m²/s
- 0.25 to 0.5m²/s
- 0.1 to 0.25m²/s
- Null (+/- 0.1m²/s)
- -0.1 to -0.5m²/s
- < -0.5m²/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

18% AEP HAZARD (DEPTH-VELOCITY PRODUCT) CHANGES

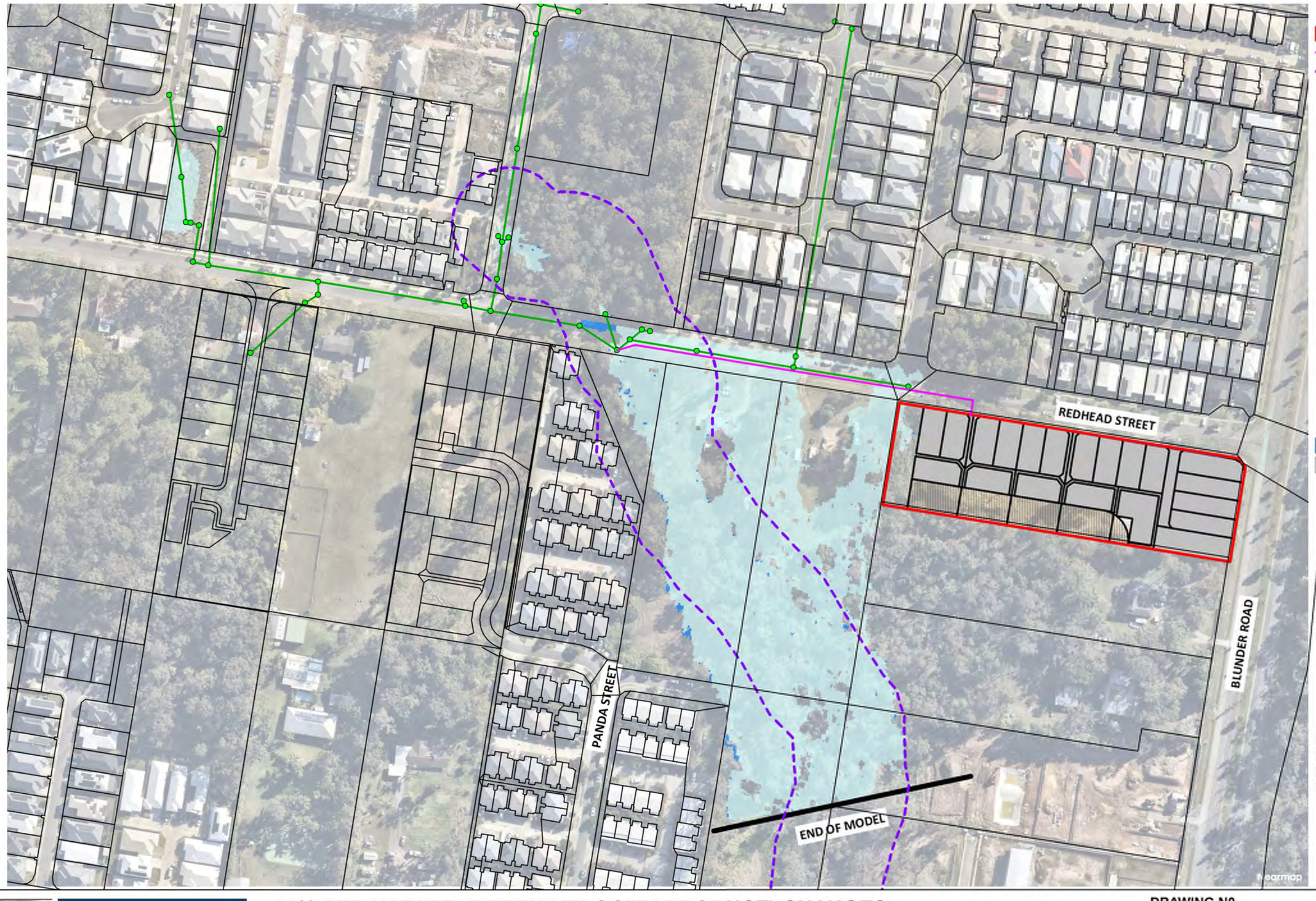
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS503	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

HAZARD CHANGES

- > 2m²/s
- 1 to 2m²/s
- 0.5 to 1m²/s
- 0.25 to 0.5m²/s
- 0.1 to 0.25m²/s
- Null (+/- 0.1m²/s)
- -0.1 to -0.5m²/s
- < -0.5m²/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

URBAN CONSULTANTS

10% AEP HAZARD (DEPTH-VELOCITY PRODUCT) CHANGES

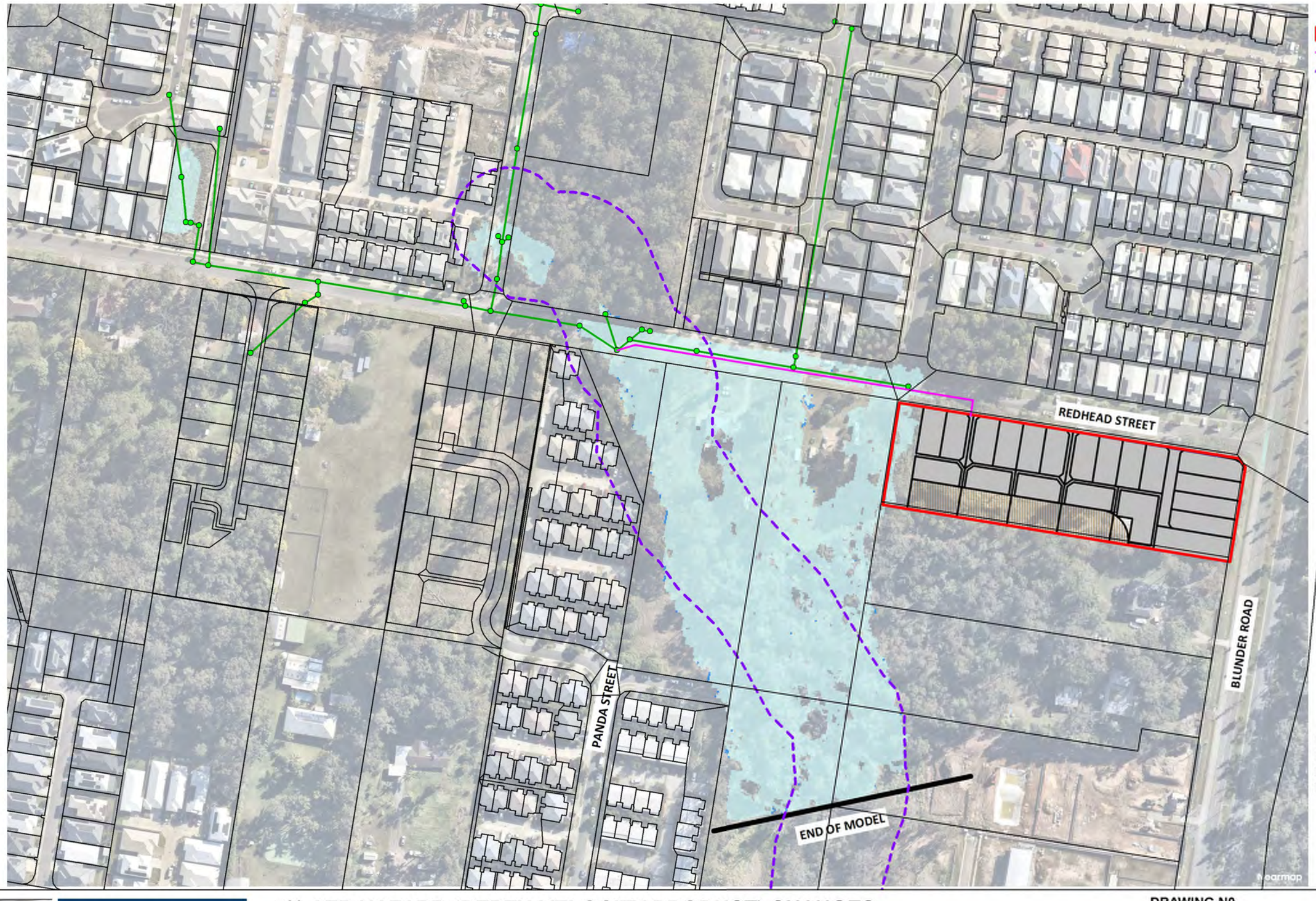
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS504	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

HAZARD CHANGES

- > 2m²/s
- 1 to 2m²/s
- 0.5 to 1m²/s
- 0.25 to 0.5m²/s
- 0.1 to 0.25m²/s
- Null (+/- 0.1m²/s)
- -0.1 to -0.5m²/s
- < -0.5m²/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

5% AEP HAZARD (DEPTH-VELOCITY PRODUCT) CHANGES

8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
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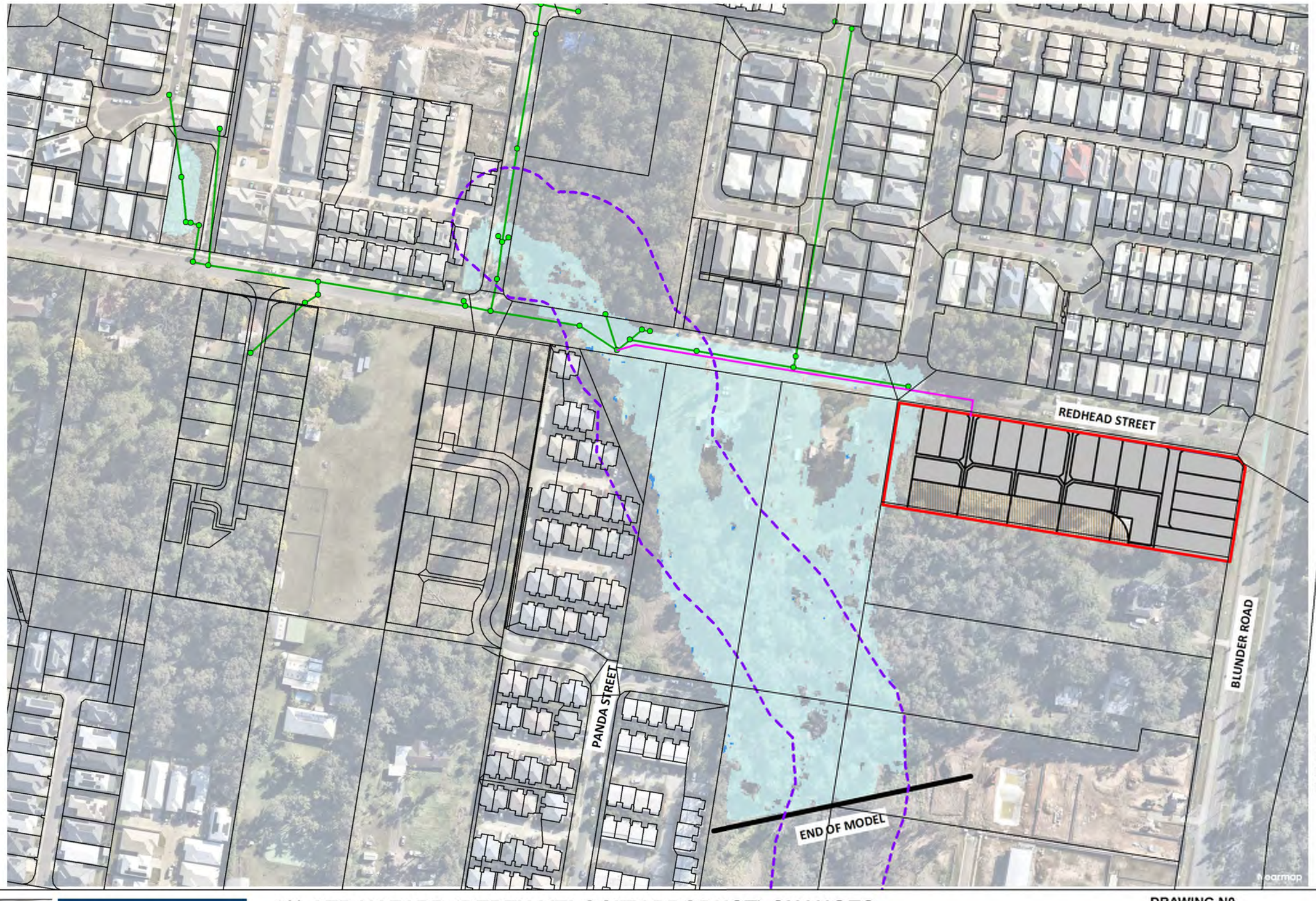
SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

HAZARD CHANGES

- > 2m²/s
- 1 to 2m²/s
- 0.5 to 1m²/s
- 0.25 to 0.5m²/s
- 0.1 to 0.25m²/s
- Null (+/- 0.1m²/s)
- -0.1 to -0.5m²/s
- < -0.5m²/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

2% AEP HAZARD (DEPTH-VELOCITY PRODUCT) CHANGES

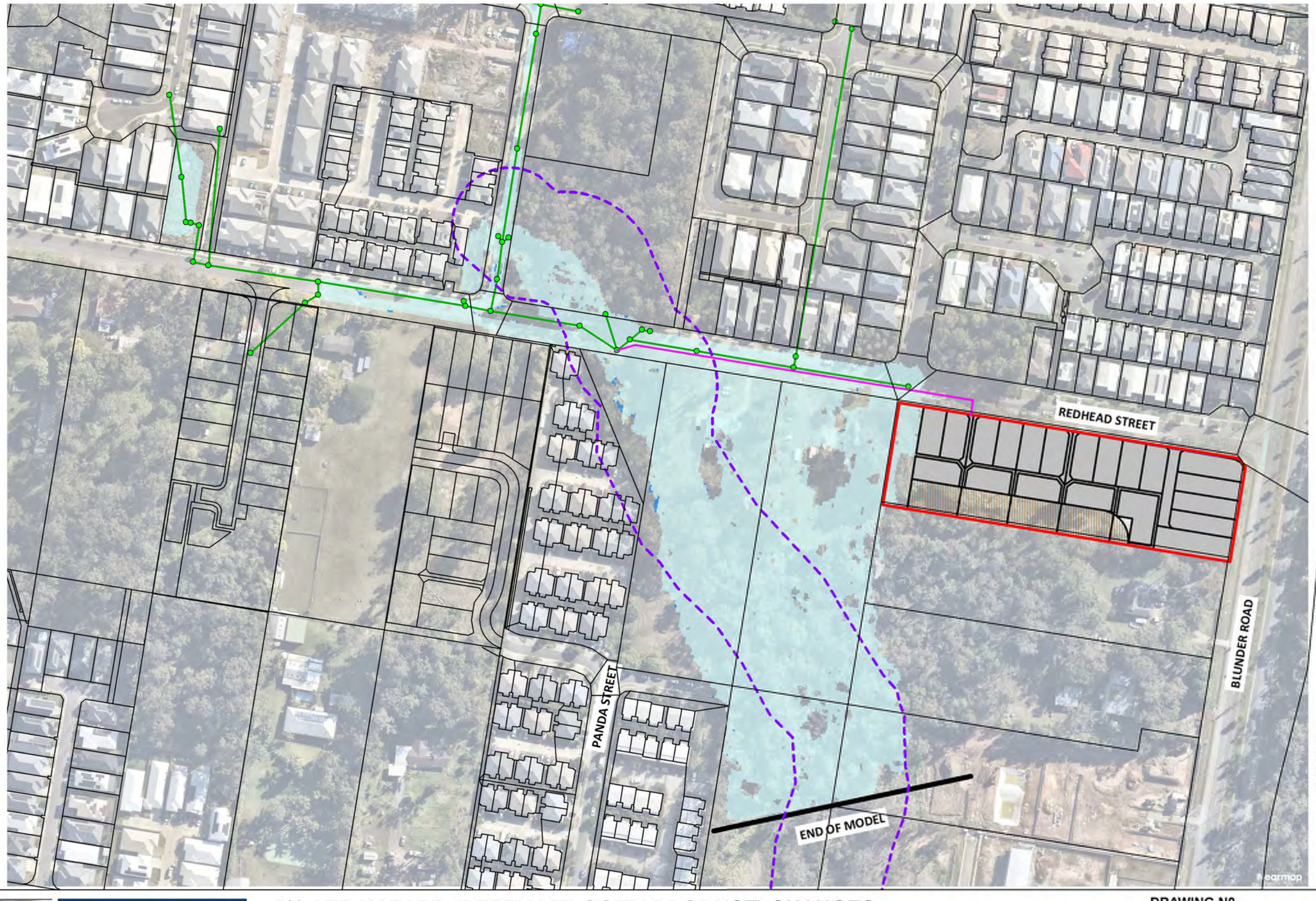
8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS506	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025



LEGEND

- SITE BOUNDARY
- NEW DRAINAGE
- W'WAY CORRIDOR

HAZARD CHANGES

- > 2m²/s
- 1 to 2m²/s
- 0.5 to 1m²/s
- 0.25 to 0.5m²/s
- 0.1 to 0.25m²/s
- Null (+/- 0.1m²/s)
- -0.1 to -0.5m²/s
- < -0.5m²/s

WET / DRY CELLS

- WAS DRY NOW WET
- WAS WET NOW DRY

NOTE: NEW DRAINAGE SHOWN IS SCHEMATIC ONLY. REFER TO PRELIMINARY ENGINEERING PLANS FOR CONCEPT DESIGN.

JFOP URBAN CONSULTANTS

1% AEP HAZARD (DEPTH-VELOCITY PRODUCT) CHANGES

8 REDHEAD STREET, DOLANDELLA

AUSBUILD PTY LTD

DRAWING N0.	ISSUE
B4687EA2_DA3_GIS507	A

SCALE: 1:2000 @ A3

DATE: 19/11/2025

APPENDIX H

EROSION HAZARD ASSESSMENT FORM

BRISBANE CITY COUNCIL ABN 72 002 765 795

Erosion Hazard Assessment

Brisbane City Council (BCC), *Erosion Hazard Assessment* form must be read in conjunction with the *Erosion Hazard Assessment- Supporting Technical Notes* (June 2014 or later version) for explanatory terms and Certification information.

What is an Erosion Hazard Assessment?

Soil erosion and sediment from urban development, particularly during construction activities, is a significant source of sediment pollution in Brisbane's waterways. The Erosion Hazard Assessment determines whether the risk of soil erosion and sediment pollution to the environment is 'low', 'medium' or 'high'.

When is the EHA required?

An Erosion Hazard Assessment form must be completed and lodged with BCC for any Development Application (ie MCU or ROL) that will result in soil disturbance OR Operational Works or Compliance Assessment Application for 'Filling' or Excavation.

Failure to submit this form during lodgement of an application may result in assessment delays or refusal of the application.

Privacy Statement

The personal information collected on this form will be used by Brisbane City Council for the purposes of fulfilling your request and undertaking associated Council functions and services. Your personal information will not be disclosed to any third party without your consent, unless this is required or permitted by law.

Assessment Details

1 Please turn over and complete the erosion hazard assessment.

2 Based on the erosion hazard assessment overleaf, is the side:

☐ ***A 'low' risk site***

Best practice erosion and sediment control (ESC) must be implemented but no erosion and sediment control plans need to be submitted with the development application. Factsheets outlining best practice ESC can be found at https://waterbydesign.com.au/download/erosion-sediment-control-for-small-construction-sites

☑ ***A 'medium' risk site***

If the development is approved, the applicant will need to engage a Registered Professional Engineer (RPEQ) or Certified Professional in Erosion and Sediment Control (CPESC) to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy.

☐ ***A 'high' risk site***

If the development is approved, the applicant will need to engage a RPEQ and CPESC to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy. The plans and program will need to be certified by a CPESC.

3 Site Information and Certification

Application number (if known)

Site address

8 Redhead Street, Doolandella

QLD

Postcode **4077**

I certify that:

☑ I have made all relevant enquiries and am satisfied no matters of significance have been withheld from the assessment manager.

☑ I am a person with suitable qualifications and/or experience in erosion and sediment control.

☑ The Erosion Hazard Assessment was completed in accordance with the Erosion Hazard Assessment Supporting Technical Notes and the BCC Infrastructure Design Planning Scheme Policy.

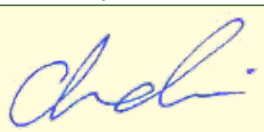
☑ The Erosion Hazard Assessment accurately reflects the site's overall risk of soil erosion and sediment pollution to the environment.

☑ I acknowledge and accept that the BCC, as assessment manager, relies, in good faith, on this certification as part of its development assessment process and the provision of false or misleading information to the BCC constitutes an offence for which BCC may take punitive steps/ action against me/ enforcement action against me.

Certified by *(Print name)*

Chamindri Blair

Certifier's signature



Date

11 / **06** / **2025**

Stock Code no. 262006

Assessment Table

Table 1: Low Risk Test

		Yes	*No*
1.1	is the area of land disturbance > 1000 m2?	☑	☐
1.2	does any land disturbance occur in a BCC mapped waterway corridor?	☐	☑
1.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 5%?	☑	☐
1.4	does any land disturbance occur below 5 m AHD?	☐	☑
1.5	does development involve endorsement of a staging plan?	☐	☑
1.6	is there an upstream catchment passing through the site > 1 hectare?	☐	☑

If you answered ***'No'*** to **ALL** of these questions, then the site is **low risk** with respect to erosion and sediment control. (Do not continue to Table 2)

If you answered ***'Yes'*** to **ANY** of these questions, then proceed to ***Table 2***

Table 2: Medium Risk Test

		Yes	*No*
2.1	is the area of land disturbance > 1 hectare?	☐	☑

If ***'No'*** then the site is **medium risk** with respect to erosion and sediment control. (Do not continue to Table 3)

If ***'Yes'*** then proceed to ***Table 3***

Table 3: High Risk Test

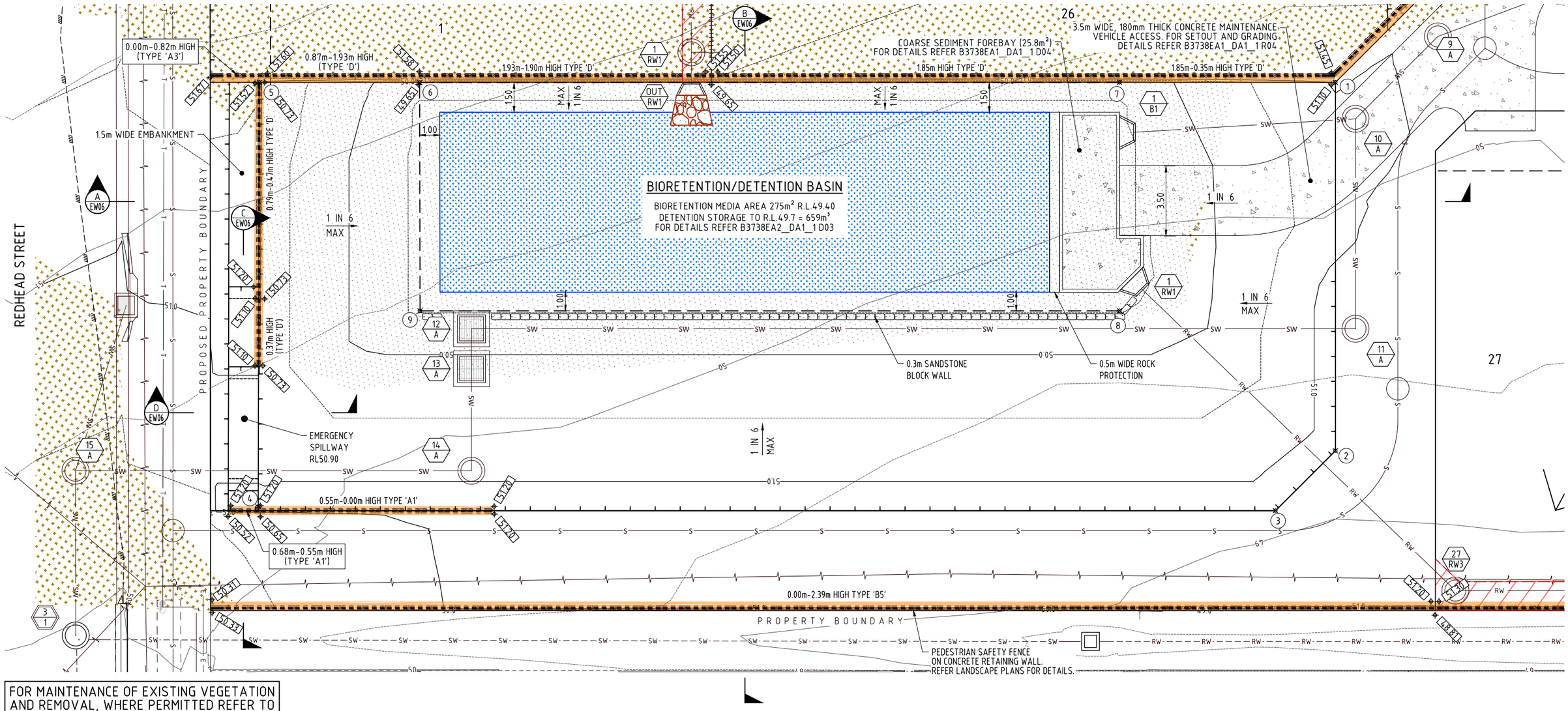
		Yes	*No*
3.1	is there an upstream catchment passing through the site > 1 hectare?	☐	☐
3.2	does any land disturbance occurs in a BCC mapped waterway corridor?	☐	☐
3.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 15%?	☐	☐

If you answered ***'No'*** to **ALL** of these questions, then the site is also **medium risk** with respect to erosion and sediment control.

If you answered ***'Yes'*** to **ANY** of these questions, then the site is **high risk** with respect to erosion and sediment control.

APPENDIX I

DETAILS OF EXISTING DETENTION BASIN 1



FOR MAINTENANCE OF EXISTING VEGETATION AND REMOVAL, WHERE PERMITTED REFER TO THE APPROVED VEGETATION MANAGEMENT PLAN AND NALL PERMITS

SAFETY FENCE NOTE

STAR PICKET AND SAFETY BARRIER MESH FENCE TO BE ERECTED ON TOP OF ALL RETAINING WALLS GREATER THAN 1.0m IN HEIGHT

RETAINING WALL CERTIFICATION

1. CIVIL CONTRACTOR TO OBTAIN DESIGN AND CONSTRUCTION RPEQ CERTIFICATION FOR ALL CONCRETE SLEEPER, SANDSTONE BOULDER & CONCRETE BLOCK RETAINING WALLS.
2. WALL DESIGN AND CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO CONSTRUCTION.
3. CONSTRUCTION CERTIFICATION TO BE PROVIDED TO SUPERVISING ENGINEER PRIOR TO "ON MAINTENANCE" INSPECTION.

EXISTING SERVICES LOCATIONS

THE DESIGN DETAILED ON THIS PLAN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION.
NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICES LOCATIONS AND DEPTHS.
IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING (HYDROVAC EXCAVATION) PRIOR TO COMMENCEMENT OF CONSTRUCTION.

RPEQ DESIGNED SHORING SYSTEM TO BE OBTAINED PRIOR TO COMMENCEMENT OF WORKS ON SITE.

CONTRACTOR TO ENSURE EXCAVATION FACE ADJACENT TO BOUNDARY IS IN A STABLE STATE AT ALL TIMES DURING CONSTRUCTION.

CONTRACTOR TO ENSURE NO DAMAGE OCCURS TO ADJOINING PROPERTY DURING WORKS.

THIS APPROVAL SHOULD NOT BE TAKEN TO CONSTITUTE PERMISSION TO ENTER NEIGHBOURING PROPERTIES TO CONSTRUCT (INCLUDING ASSOCIATED WORKS SUCH AS DRAINAGE AND EXCAVATION) ANY BUILT TO BOUNDARY WALL OR FENCES. PERMISSION MUST BE OBTAINED FROM RELEVANT PROPERTY OWNERS.

NOTE:

THE CONTRACTOR IS TO ENSURE THAT FOOTINGS FOR RETAINING WALLS ARE CLEAR OF THE PROPOSED SEWER AND ROOFWATER LINES.

Fire Ant Movement Controls

To prevent the spread of fire ants, the Queensland Government has implemented controls that apply to individuals and commercial operators, to restrict the movement of materials that could carry fire ants including soil, turf, potted plants, mulch, baled hay or straw, animal manures, mining or quarry products.

Penalties apply for non-compliance with the movement controls. if you are unsure of your obligations under the Biosecurity Act 2014 contact the relevant Queensland State Government Department.

EPZ
Environmental Protection Zone to be clearly demarcated onsite and protected in accordance with the conditions of approval.

SPOT LEVELS

ALL LEVELS SHOWN ARE THE FINISHED SURFACE.
SUBTRACT THE FOLLOWING TO EARTHWORKS LEVELS TO ALLOW FOR TOPSOIL THICKNESS:
ALLOTMENTS - 100mm
VERGE & PARKS - 150mm
BASIN BATTERS - 300mm

FOR NOTES AND DETAILS REFER DWG No. B3738EA2_DA1_1 EW01 & EW04

REFER TO LANDSCAPE DRAWINGS FOR DETAILS OF FENCES ABOVE RETAINING WALLS

BIORETENTION BASIN SETOUT AND LEVEL TABLE

PT No.	TYPE	EASTING	NORTHING	LEVEL
1	KTP	498036.440	6945482.155	51.387
2	KTP	498054.627	6945479.165	51.200
3	KTP	498057.100	6945475.718	51.200
4	KTP	498048.643	6945425.505	51.200
5	KTP	498027.705	6945429.021	51.521
6	KTP	498029.014	6945436.940	49.650
7	KTP	498034.689	6945471.497	49.650
8	KTP	498045.967	6945469.643	49.400
9	KTP	498040.289	6945435.105	49.400

It is certified that works herein have been constructed to Local government standards, relevant approved specifications and the operational works approval. The As-Constructed Drawings for these works constitutes a true and correct record of the works constructed and complies with the design intent.

Signature ..... RPEQ No. 8068
Date of practical completion 19/08/2021
Company Title JFP Urban Consultants PTY LTD

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SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:100 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 1 2 3 4 5 (A1) 1:100 10 Metres
(A3) 1:200
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

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☐ T.McKINNEY RPEQ 5087 ☐ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086
☑ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	SB
DRAWN	FR
CHECKED	PH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
C	AS CONSTRUCTED ISSUE	23/08/21	SAW
B	OVERFLOW WEIR LEVELS REVISED	13/01/21	SB
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	29/09/20	FR

TITLE:

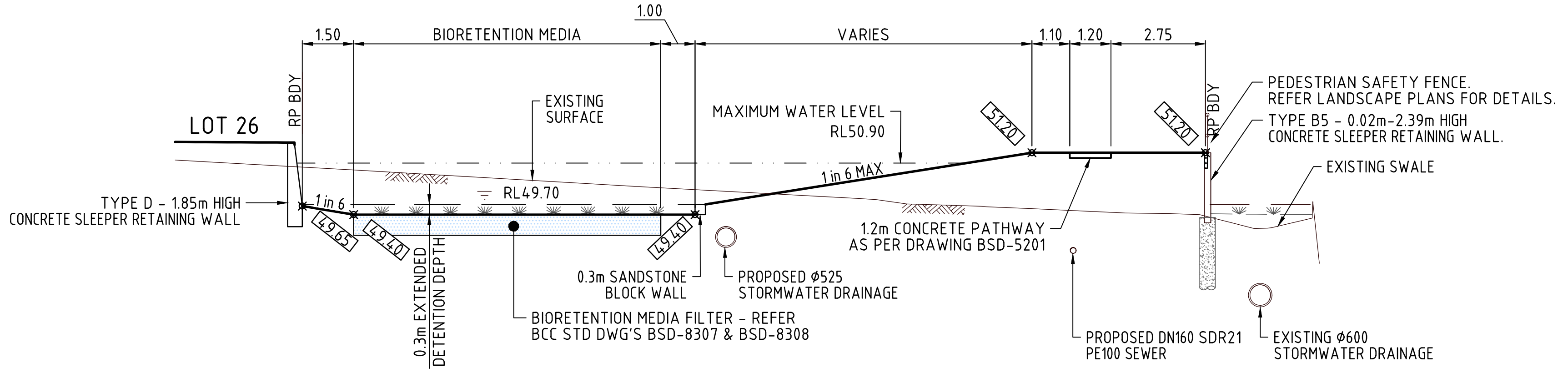
EARTHWORKS BIORETENTION/DETENTION BASIN LAYOUT PLAN

STONEHOUSE FARM PTY LTD

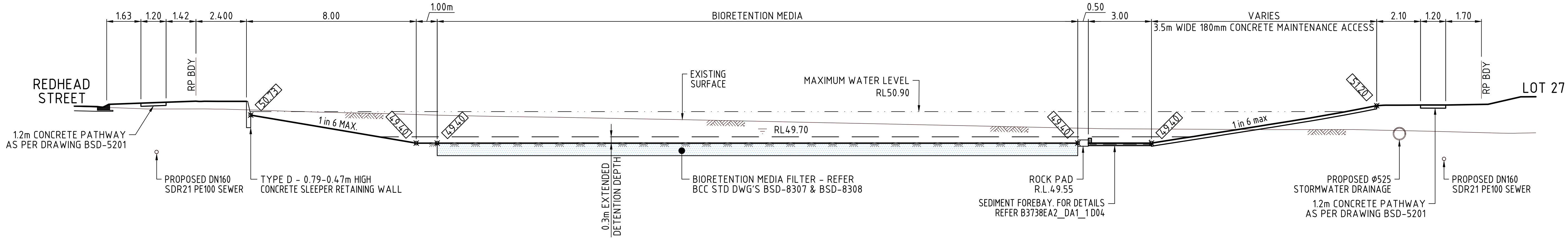
PROPOSED DEVELOPMENT AT
83 & 91 REDHEAD ST, DOOLANDELLA

DETAILS:
JOB NO: B3738EA2_DA1_1
PLAN: EW05 ISSUE: C
BRISBANE CITY COUNCIL REF: A005317777
FILE NAME: AC_EARTHWORKS.DWG

7/09/2021 N:\B3738\CA\DA1_1\CS-CONSTRUCTED\AC_EARTHWORKS



SECTION B (EW05)
SCALE 1 : 100



SECTION A (EW05)
SCALE 1 : 100

FOR MAINTENANCE OF EXISTING VEGETATION AND REMOVAL, WHERE PERMITTED REFER TO THE APPROVED VEGETATION MANAGEMENT PLAN AND NALL PERMITS

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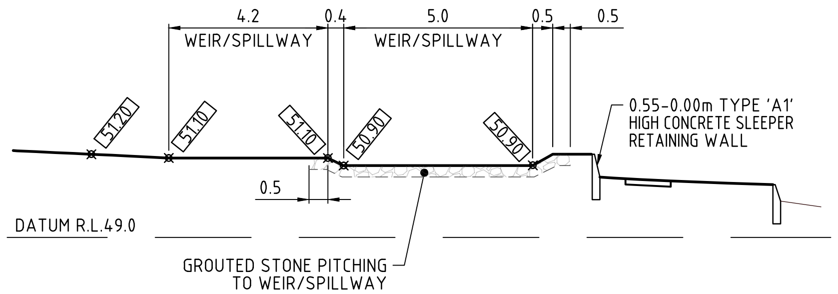
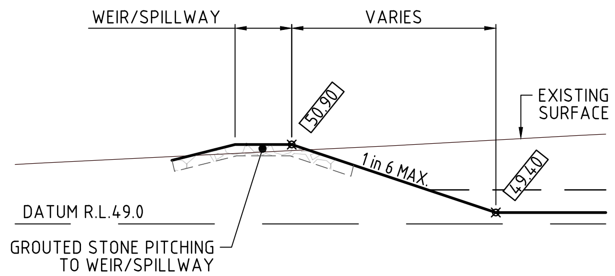
Penalties apply for non-compliance with the movement controls. If you are unsure of your obligations under the Biosecurity Act 2014 contact the relevant Queensland State Government Department.

NOTE:

THE CONTRACTOR IS TO ENSURE THAT FOOTINGS FOR RETAINING WALLS ARE CLEAR OF THE PROPOSED SEWER AND ROOFWATER LINES.



SECTION C (EW05)
SCALE 1 : 100



SECTION D (EW05)
SCALE 1 : 100

SPOT LEVELS

ALL LEVELS AND CONTOURS SHOWN ARE 100mm BELOW TOP OF TOPSOIL LEVELS TO ALLOW FOR WAFFLE POD SLABS.

REFER TO LANDSCAPE DRAWINGS FOR DETAILS OF FENCES ABOVE RETAINING WALLS

It is certified that works herein have been constructed to Local government standards, relevant approved specifications and the operational works approval. The As-Constructed Drawings for these works constitutes a true and correct record of the works constructed and complies with the design intent.

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LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:500 A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 5 10 15 20 25 (A1) 1:500 50 Metres
(A3) 1:1000
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FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.M^cKINNEY RPEQ 5087 | A.FRASER RPEQ 5691 | J.PAPPAS RPEQ 6086
☑ S.MARSH RPEQ 8068 | H.WATSON RPEQ 6200

DESIGNED	SB
DRAWN	FR
CHECKED	PH
DATUM: AHD	

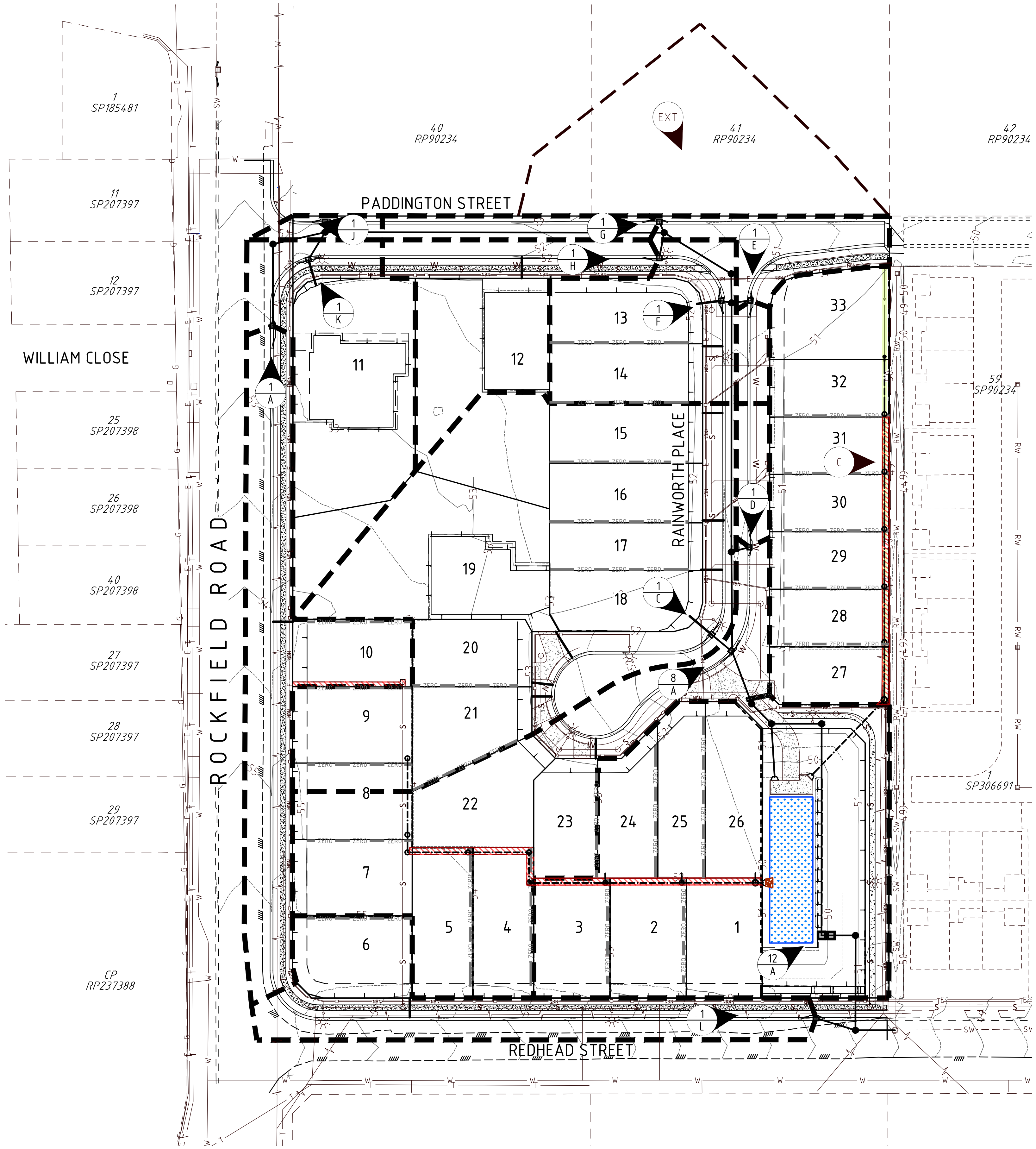
ISSUE:	DETAILS:	DATE:	INIT:
C	AS CONSTRUCTED ISSUE	23/08/21	SAW
B	SECTION 'C' REVISED	13/01/21	SB
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	29/09/20	FR

TITLE:
EARTHWORKS BIORETENTION/DETENTION BASIN SECTIONS

STONEHOUSE FARM PTY LTD

PROPOSED DEVELOPMENT AT
83 & 91 REDHEAD ST, DOOLANDELLA

DETAILS:
JOB NO: B3738EA2_DA1_1
PLAN: EW06 ISSUE: C
BRISBANE CITY COUNCIL REF: A005317777
FILE NAME: AC_EARTHWORKS.DWG



LEGEND:

FINISHED CONTOURS
PROPOSED STORMWATER DRAINAGE
PROPOSED CATCHMENT BOUNDARIES
EXTERNAL/EXISTING CATCHMENT BOUNDARIES
CATCHMENT NUMBERS

CATCHMENT TABLE

CATCHMENT NAME	CATCHMENT AREA (ha)	RUNOFF COEFF MINOR	RUNOFF COEFF MAJOR
1/A	0.172	0.72	1
8/A	0.294	0.72	1
12/A	0.397	0.72	1
1/C	0.522	0.72	1
1/D	0.02	0.72	1
1/E	0.014	0.72	1
1/F	0.116	0.72	1
1/G	0.028	0.72	1
1/H	0.124	0.69	1
1/J	0.012	0.72	1
1/K	0.176	0.67	1
1/L	0.145	0.72	1
C	0.225	0.74	1
EXT	0.176	0.60	1

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FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
T.McKINNEY RPEQ 5087 | A.FRASER RPEQ 5691 | J.PAPPAS RPEQ 6086
S.MARSH RPEQ 8068 | H.WATSON RPEQ 6200

DESIGNED SB | DRAWN FR | CHECKED PH | DATUM: AHD

ISSUE:	DETAILS:	DATE:	INIT:
C	AS CONSTRUCTED ISSUE	23/08/21	SAW
B	CATCHMENT TABLE REVISED	13/01/21	SB
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	29/09/20	FR

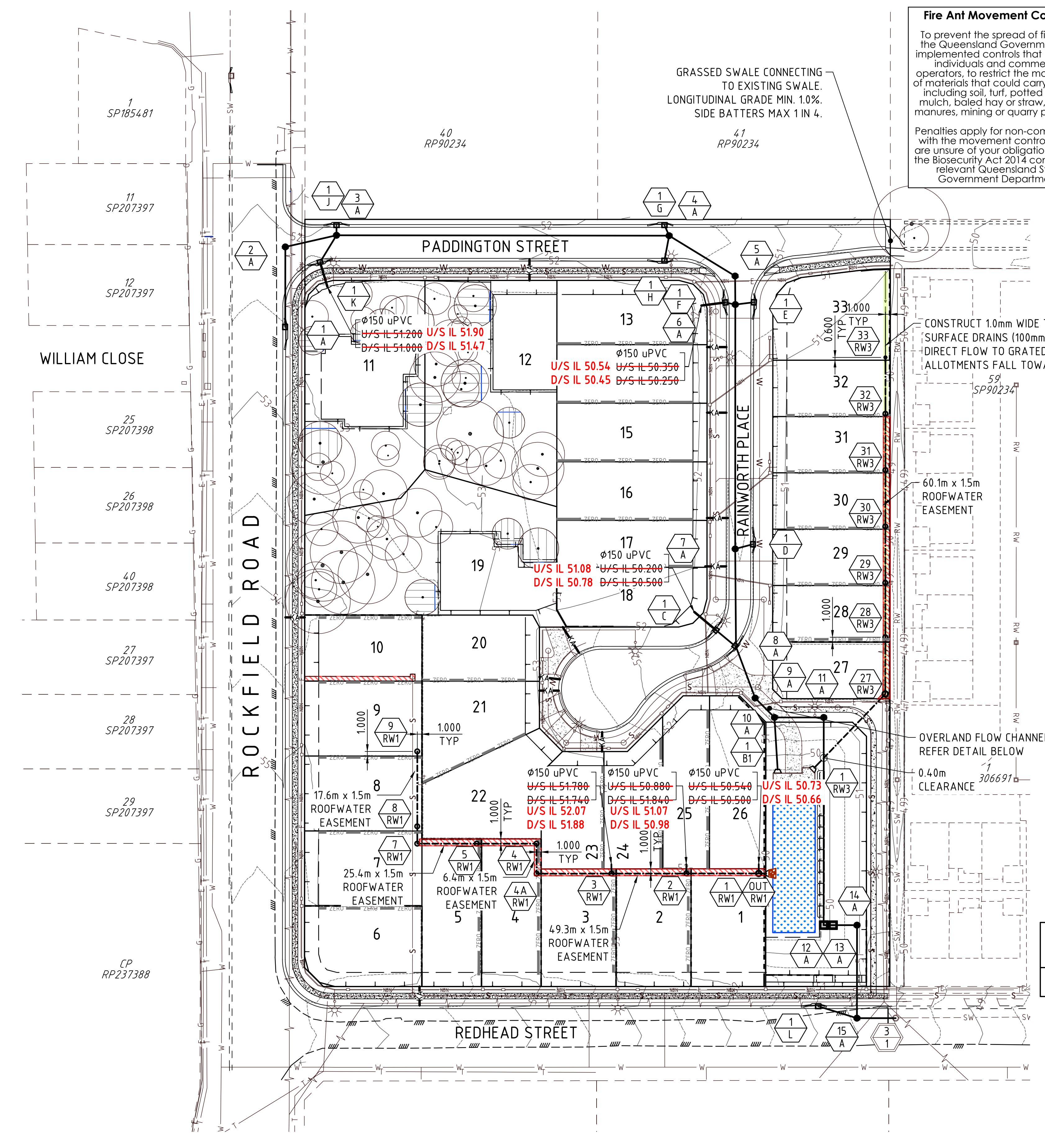
TITLE:

DRAINAGE CATCHMENT PLAN

STONEHOUSE FARM PTY LTD

PROPOSED DEVELOPMENT AT
83 & 91 REDHEAD ST, DOOLANDELLA

DETAILS:
JOB NO: B3738EA2_DA1_1
PLAN: D01
ISSUE: C
BRISBANE CITY COUNCIL REF: A005317777
FILE NAME: AC_DRAINAGE.DWG



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Penalties apply for non-compliance with the movement controls. If you are unsure of your obligations under the Biosecurity Act 2014 contact the relevant Queensland State Government Department.

TREE LEGEND

- TREES TO BE RETAINED AND PROTECTED
- TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

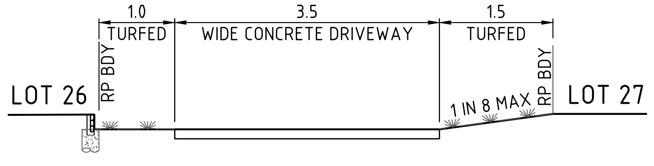
TPZ
Tree Protection Zone
All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

REFERENCE POINT LOCATION FOR STORMWATER DRAINAGE STRUCTURES

STRUCTURE TYPE	HORIZONTAL REFERENCE LOCATION (STRUCTURE SETOUT CO-ORDINATES)	VERTICAL REFERENCE LEVEL
MANHOLE AND ROOFWATER PIT	℄ MAIN SHAFT	FINISHED SURFACE LEVEL - MANHOLE/PIT COVER
GULLY PIT, ROADWAY TYPE CHANNEL LIP IN LINE	CENTRE OF GULLY CHAMBER	LIP OF KERB
FIELD INLET AND ROOFWATER PIT	CENTRE OF GULLY CHAMBER	TOP OF GRATE OR COVER
HEADWALL	℄ OF HEADWALL (END OF OUTLET PIPE)	INVERT OF OUTLET PIPE.

PRIOR TO COMMENCEMENT OF WORKS REFER TO VEGETATION MANAGEMENT PLAN, REHABILITATION PLAN AND LANDSCAPE ARCHITECTS PLANS

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPANCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PIPE LAYING.



OVERLAND FLOWPATH TYPICAL SECTION

SCALE 1 : 50 (A1)

OVERLAND FLOW CHANNEL FLOW DETAILS

CATCHMENT	ARI (years)	DISCHARGE (m^3/s)	CAPACITY (m^3/s)	SLOPE (%)	MANNINGS ('n')	DEPTH OF WATER (m)	VELOCITY (m/s)	V x d
8/A BYPASS	50	0.364	6.490	1.0	0.016	0.069	0.969	0.067

LEGEND:

- EXISTING STORMWATER DRAINAGE
- FINISHED CONTOURS
- PROPOSED STORMWATER DRAINAGE
- PROPOSED ROOFWATER DRAINAGE
- SEWERAGE
- WATER MAIN
- ROOFWATER DRAINAGE KERB ADAPTORS (FULL DEPTH TYPE)
- TURFED SURFACE DRAIN
- STRUCTURE NUMBERS — EXISTING / PROPOSED / FUTURE

STORMWATER DRAINAGE NOTES

1. SURFACE CONTOURS SHOWN ON THIS PLAN ARE FOR THE FINISHED SURFACE DERIVED FROM FIELD SURVEY & ROAD/EARTHWORKS DESIGN.
2. ALL STORMWATER GULLIES FOR THIS ESTATE TO BE STANDARD LIP IN LINE GULLY TYPE 'A'. REFER TO BCC STD. DWG'S BSD-8051, BSD-8053 & BSD-8054.
3. All STORMWATER GULLIES DEEPER THAN 1.20m TO HAVE STEP IRONS INSTALLED. REFER TO DWG'S BSD-8051, BSD-8053 & BSD-8054.4.
4. ALL STORMWATER GULLIES DEEPER THAN 1.35m TO BE EITHER INDIVIDUALLY DESIGNED OR DESIGNED AND CONSTRUCTED TO DTMR STANDARD DRAWING No. 1311.
5. STORMWATER MAINTENANCE HOLES 1050mm - 1500mm DIAMETER TO BE IN ACCORDANCE WITH BCC STD DWG BSD-8021. MAINTENANCE HOLES OF A DEPTH GREATER THAN 3.00m SHALL BE CONSTRUCTED IN ACCORDANCE WITH 'DEPARTMENT OF TRANSPORT AND MAIN ROADS' STANDARD DRAWING No. 1307.
6. ROOFWATER DRAINAGE LINES ARE Ø150 UPVC & TO BE LAID 0.6M FROM PROPERTY BOUNDARY U.N.O.. INSPECTION MANHOLES TO BE AS PER B.C.C. STD DWG BSD-8111.
7. ROOFWATER DRAINAGE PIPES SHALL BE APPROVED UPVC STORMWATER CLASS PIPES. (DIA. 150mm, 225mm & 300mm). DIA. 90mm STORMWATER DRAINAGE PIPES ARE NOT TO BE USED.
8. CONTRACTOR IS TO VERIFY ALL FINISHED SURFACE LEVELS OF PROPOSED ROOFWATER PITS BEFORE CONSTRUCTION TO FINISHED LEVELS.
9. ALL ROOFWATER HOUSE CONNECTIONS ARE TO EXTEND 1.0m BEYOND SEWER LINE UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT.
10. ALL ROOFWATER HOUSE CONNECTIONS SHALL BE CONSTRUCTED TO MAINTAIN A MINIMUM HORIZONTAL CLEARANCE OF 0.5m TO THE SEWER HOUSE CONNECTION UNLESS DIRECTED OTHERWISE.
11. THE ROOFWATER INSPECTION MANHOLES ARE TO BE IN ACCORDANCE WITH BCC STD DWG BSD-8112. DEPTHS AND MINIMUM DIAMETER SHALL BE AS FOLLOWS:-

DEPTH	MINIMUM DIAMETER
<600	Ø300
> 600 - <750	Ø550
> 750 - <1500	Ø900
> 1500	Ø1050 (STD DWG BSD-8021)

12. ROOFWATER HOUSE CONNECTIONS ARE NOT TO EXCEED 1.0m IN DEPTH.
13. ROOFWATER HOUSE CONNECTIONS TO SWALES TO BE AS PER BCC STD DWG BSD-8304.
14. ALL LOTS DRAINING TO KERB AND CHANNEL TO HAVE A SINGLE FULL HEIGHT KERB ADAPTOR AS PER BCC STD DWG BSD-8114
15. IN STREETS WHERE FOOTPATHS ARE TO BE CONSTRUCTED, INSTALL KERB ADAPTORS AS PER ITEM 12 WITH A LENGTH OF 100 X 75 RHS (HOT DIPPED GALVANISED) EXTENDED FROM ADAPTOR TO THE RP BOUNDARY AS PER BCC STD DWG BSD-8114.

EXISTING SERVICES LOCATIONS

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Signature [signature] RPEQ No. 8068
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NORTH:

SCALE: 1:500 A1 (A3) 1:1000
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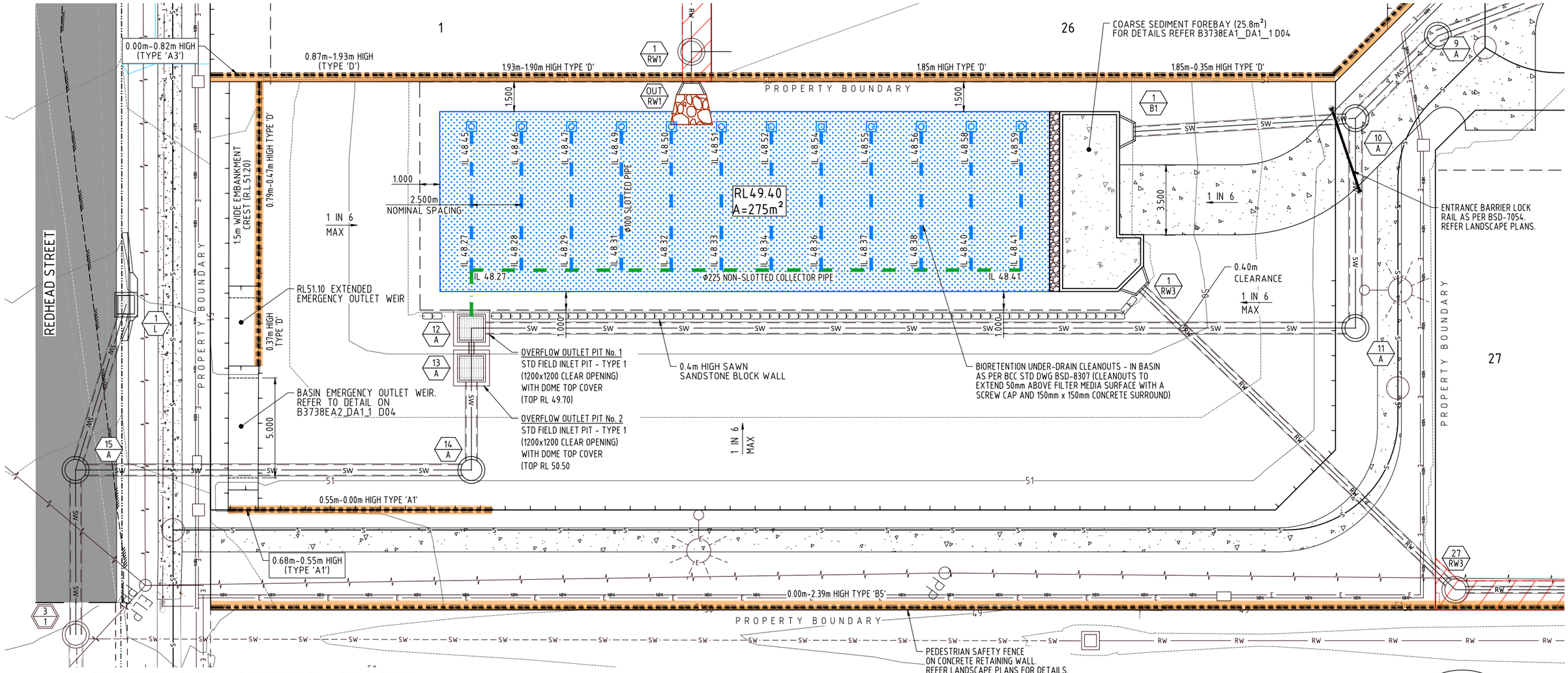
DESIGNED SB · DRAWN FR · CHECKED PH · DATUM: AHD

ISSUE	DETAILS	DATE	INIT
D	AS CONSTRUCTED ISSUE	23/08/21	SAW
C	SWALE ADDED	04/02/21	SB
B	GULLY PIT 1/L ADDED	17/12/20	SB
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	13/01/21	FR

TITLE:
DRAINAGE LAYOUT PLAN

STONEHOUSE FARM PTY LTD
PROPOSED DEVELOPMENT AT 83 & 91 REDHEAD ST, DOOLANDELLA

DETAILS:
JOB NO: B3738EA2_DA1_1
PLAN: D02 ISSUE: D
BRISBANE CITY COUNCIL REF: A005317777
FILE NAME: AC_DRAINAGE.DWG



COARSE SEDIMENT FOREBAY DESIGN CALCULATIONS TABLE

'EQUATION 3': $V_s = A_c \times R \times L_o \times F_c$ (MINIMUM SEDIMENT FOREBAY VOLUME)

'Ac' CONTRIBUTING CATCHMENT AREA (ha)	'R' CAPTURE EFFICIENCY (0.8 RECOMMENDED)	'Lo' SEDIMENT LOADING RATE (m^3/ha/year)	'Fc' DESIRED CLEANOUT FREQUENCY (years)	'Vs' FOREBAY SEDIMENT STORAGE VOLUME (m^3)
2.3	0.8	0.6	1	1.104

'EQUATION 4': $R = 1 - \left[1 + \frac{1}{n} \times V_s/(Q/A_f)\right]^{-n}$ (MINIMUM FOREBAY AREA)

'R' FRACTION OF TARGET SEDIMENT REMOVED (0.8 RECOMMENDED)	'Vs' SETTLING VELOCITY OF TARGET SEDIMENT (0.1m/s FOR 1mm PARTICLE)	'Q' Q_3 MONTH ARI FLOW RATE (m^3/S)	'n' TURBULENCE OR SHORT-CIRCUITING PARAMETER (0.5 RECOMMENDED)	'Af' MINIMUM FOREBAY AREA REQUIRED FOR SEDIMENT CAPTURE (m^2)
0.8	0.1	0.151	0.5	18.120

'EQUATION 5': $D_s = V_s/A_f$ (PRELIMINARY FOREBAY DEPTH)

'Vs' FOREBAY SEDIMENT STORAGE VOLUME (FROM EQUATION 3) (m^3)	'Af' MINIMUM FOREBAY AREA REQUIRED FOR SEDIMENT CAPTURE (FROM EQUATION 4) (m^2)	'D^s' FOREBAY DEPTH (≤0.3m)	FOREBAY AREA PROVIDED (m^2)	FOREBAY DEPTH PROVIDED (m)
1.104	18.120	0.061	25.8	0.100

IN ACCORDANCE WITH "WATER BY DESIGN - BIORETENTION TECHNICAL DESIGN GUIDELINES - VERSION 1.1, OCTOBER 2014" - 'EQUATION 7', 'EQUATION 11' & 'EQUATION 12' FOR 'TYPE 2' SEALED BIORETENTION SYSTEMS

BIORETENTION UNDER-DRAIN SIZING DESIGN CRITERIA

PIPE REACH	BIORETENTION PROPERTIES					UNDER-DRAIN PIPE SIZING				
	'KSAT' INFILTRATION RATE (mm/hr)	'A' BIORETENTION FILTER AREA (m^2)	'h' EXTENDED DETENTION DEPTH (m)	'd' BIORETENTION FILTER DEPTH (m)	'Qmax' FLOW THROUGH FILTER (l/s)	$Q_{SLOTTED}$ REQUIRED PIPE FLOW (l/s)	PIPE DIAMETER (mm)	PIPE GRADE (%)	PIPE CAPACITY (SINGLE) (l/s)	NUMBER OF PIPES
UNDER-DRAIN SLOTTED BRANCH PIPE BOTH BRANCHES COMBINED	180	275	0.3	0.6	20.6	24.8	100	0.5	4.3	6
UNDER-DRAIN COLLECTOR PIPE							225	0.5	38	1

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPANCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PIPE LAYING.

PRIOR TO COMMENCEMENT OF WORKS REFER TO VEGETATION MANAGEMENT PLAN, REHABILITATION PLAN AND LANDSCAPE ARCHITECTS PLANS

EXISTING SERVICES LOCATIONS

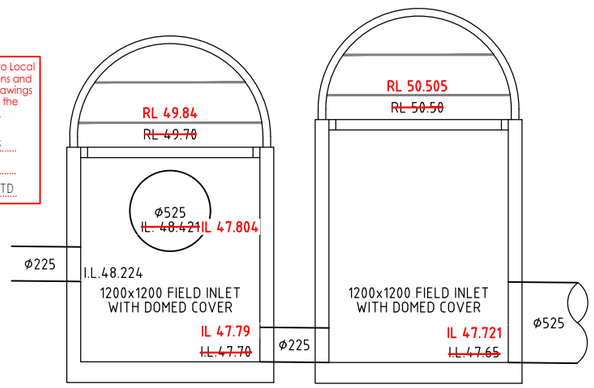
THE DESIGN DETAILED ON THIS PLAN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICES LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING (HYDROVAC EXCAVATION) PRIOR TO COMMENCEMENT OF CONSTRUCTION.

THIS DRAWING TO BE READ IN CONJUNCTION WITH IPWEAQ "WATER BY DESIGN" STANDARD DRAWINGS:

WSUD-001 - "BIORETENTION STANDARD PROFILE OVERFLOW PIT"
WSUD-003 - "STANDARD PROFILE UNDERDRAIN CLEANOUT"
WSUD-005 - "LARGE COARSE SEDIMENT FOREBAY"
WSUD-006 - "BASIN WEIR DETAILS"

It is certified that works herein have been constructed to Local government standards, relevant approved specifications and the operational works approval. The As-Constructed Drawings for these works constitutes a true and correct record of the works constructed and complies with the design intent.

Signature ..... RPEQ No. 8068
Date of practical completion 19/08/2021
Company Title JFP Urban Consultants PTY LTD



DETENTION BASIN OUTLETS CONFIGURATION

SCALE 1:50

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JFP URBAN CONSULTANTS
BRISBANE - SUNSHINE COAST - CENTRAL QLD
BRISBANE
JFP House - 76 Ernest Street,
South Brisbane Qld 4101
P 07 3012 0100 W www.jfp.com.au
JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 050 414 045
PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:

SCALE: 1:100 A1 — THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE 0 1 2 3 4 5 (A1) 1:100 10 Metres (A3) 1:200 — DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED — FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
☐ T.MCKINNEY RPEQ 5087 ☐ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086
☑ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

		ISSUE:	DETAILS:	DATE:	INIT:
DESIGNED	SB	C	AS CONSTRUCTED ISSUE	23/08/21	SAW
DRAWN	FR	B	BCC RFI RESPONSE	15/12/20	SB
CHECKED	PH	A	ISSUE FOR OPERATIONAL WORKS APPROVAL	29/09/20	SB
DATUM: AHD					

TITLE:

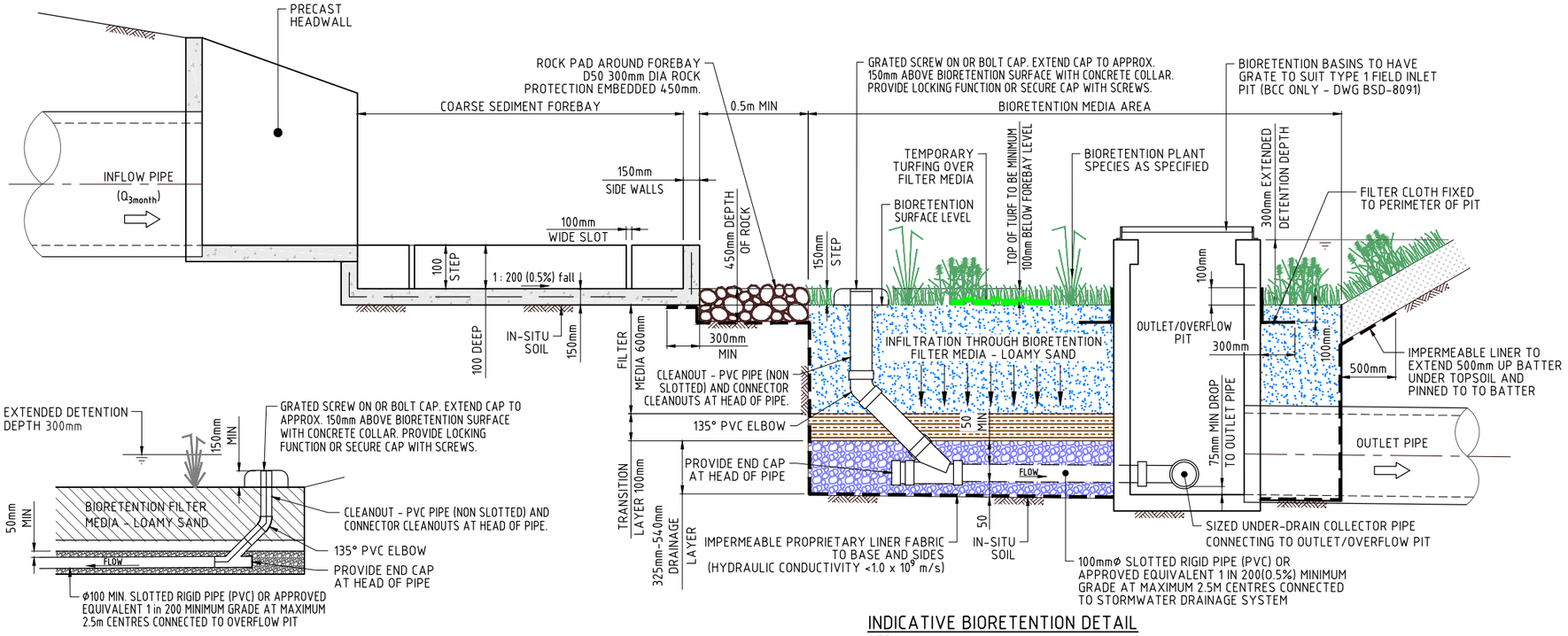
DRAINAGE - BIORETENTION LAYOUT PLAN AND DETAILS

STONEHOUSE FARM PTY LTD

PROPOSED DEVELOPMENT AT
83 & 91 REDHEAD ST, DOOLANDELLA

DETAILS:
JOB NO: B3738EA2_DA1_1
PLAN: D03 ISSUE: C
BRISBANE CITY COUNCIL REF: A005317777
FILE NAME: AC_BIORETENTION.DWG

7/09/2021 N:\B3738\WA\D04_1\AS-CONSTRUCTED\AC_BIORETENTION



INDICATIVE BIORETENTION DETAIL

NTS

UNDER-DRAIN CLEANOUT TYPICAL DETAIL

SCALE 1 : 25 (REFER TO BCC STD DWG BSD-8307)

BIORETENTION NOTES:

1. CONSTRUCTION TOLERANCES AS DOCUMENTED IN THE "WATER SENSITIVE URBAN DESIGN CONSTRUCTION AND ESTABLISHMENT GUIDELINES - SWALES, BIORETENTION SYSTEMS AND WETLANDS" (WATER BY DESIGN) MUST BE ACHIEVED.
2. FILTER CLOTH IS NOT TO BE PLACED BETWEEN ANY FILTER LAYERS. FILTER CLOTH IS TO EXTEND 500MM UP BATTER UNDER TOPSOIL PINNED TO BATTER.
3. UNDER-DRAIN: SLOTTED RIGID PIPE (UPVC OR SIMILAR TO AS 2439.1) OR APPROVED EQUIVALENT, 0.5% MIN. GRADE. PIPE JOINS SHOULD BE GLUED USING PLUMBING CEMENT. PIPE SHOULD NOT BE INSTALLED WITH A FILTER SOCK AT MAX 2.5M CENTRES.
4. FOR UNDER-DRAIN CLEAN OUT DETAIL REFER TO BCC STD DWG BSD-8307

BIORETENTION FILTER MEDIA SPECIFICATION

FILTER MATERIAL SHALL BE GRADED AND CAN BE SILICEOUS OR CALCAREOUS IN ORIGIN.
THE FILTER MATERIAL SHALL BE EVENLY PLACED AND LIGHTLY COMPACTED.
THE FILTER MATERIAL SHALL COMPLY WITH THE FOLLOWING CRITERIA:

MATERIAL:
SANDY LOAM OR APPROVED EQUIVALENT WITH A HYDRAULIC CONDUCTIVITY OF 180mm/hr AND BE FREE FROM RUBBISH AND DETRITUS MATERIAL.

PARTICLE SIZE:
TYPICAL SOIL COMPOSITION WOULD BE:
CLAY & SILT <3%(<0.05mm)
VERY FINE SAND 5-30% (0.05-0.15mm)
FINE SAND 10-30% (1.0mm-2.0mm)
FINE GRAVEL <3% (2.0mm-3.4mm)

ORGANIC CONTENT:
LESS THAN 5%(w/w). AN ORGANIC CONTENT OF HIGHER THAN 5% IS LIKELY TO RESULT IN LEACHING OF NUTRIENTS. REFER TO A.S.4419-2003.

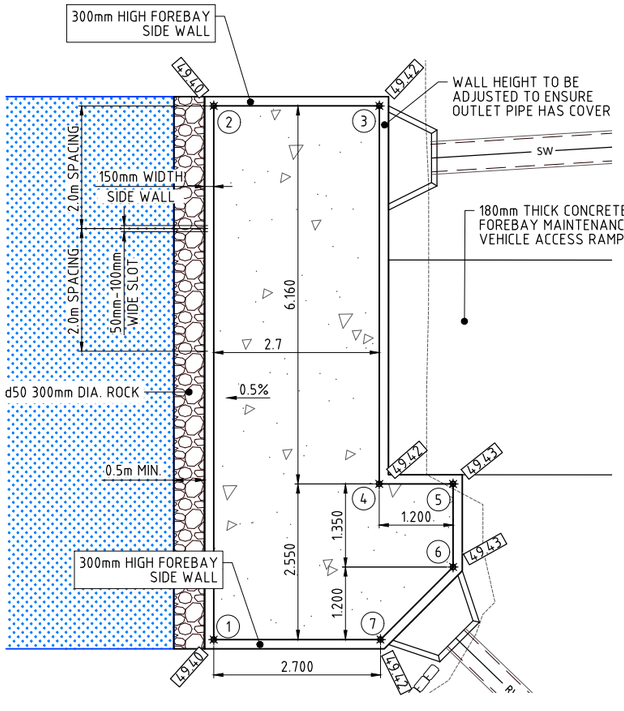
pH:
AS SPECIFIED FOR 'NATURAL SOILS AND SOIL BLENDS' 5.5-7.5 (pH 1:5 IN WATER). REFER TO A.S.4419-2003.

ELECTRICAL CONDUCTIVITY:
AS SPECIFIED FOR 'NATURAL SOILS AND SOIL BLENDS'<1.25dS/m. REFER TO A.S.4419-2003.

PHOSPHORUS
<100mg/kg. SOILS WITH PHOSPHORUS CONCENTRATIONS >100mg/kg SHOULD BE TESTED FOR POTENTIAL LEACHING. WHERE PLANTS WITH MODERATE PHOSPHORUS SENSITIVITY ARE TO BE USED, PHOSPHORUS CONCENTRATIONS SHOULD BE <20mg/kg.

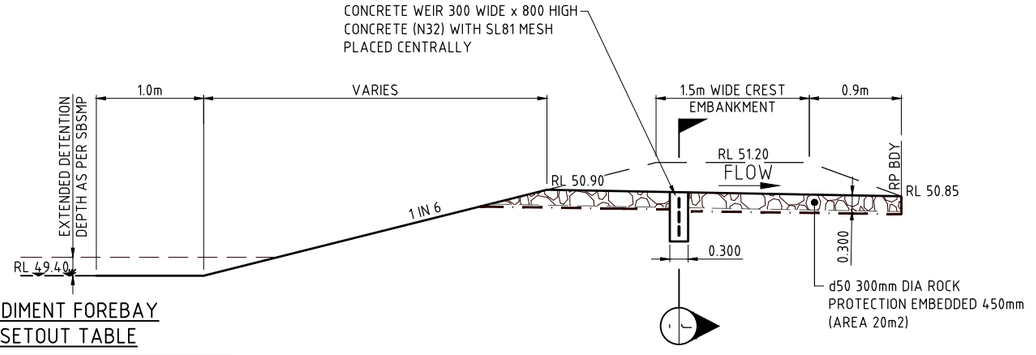
TRANSITIONAL LAYER
SHALL BE CLEAN WELL GRADED SAND OR COURSE SAND MATERIAL CONTAINING LITTLE OR NO FINES. THE GRADING OF THE TRANSITIONAL LAYER SHALL COMPLY WITH THE FOLLOWING CRITERIA:
% PASSING 1.4mm 100%
1.0mm 80%
0.7mm 44%
0.5mm 8.4%
THE TRANSITIONAL LAYER SHALL HAVE A HYDRAULIC CONDUCTIVITY OF 1800mm/hr

DRAINAGE LAYER:
SHALL BE CLEAN FINE GRAVEL (2mm - 5mm WASHED SCREENINGS) MINIMUM HYDRAULIC CONDUCTIVITY OF 3600mm/hr.



SEDIMENT FOREBAY LAYOUT PLAN

SCALE 1 : 50 (A1)

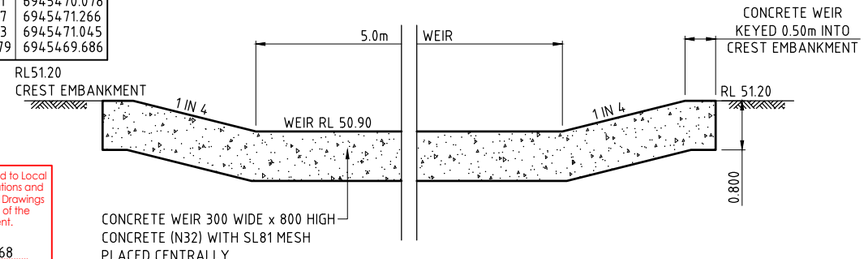


DETENTION BASIN DETAIL

NTS

SEDIMENT FOREBAY SETOUT TABLE

PT No.	TYPE	EASTING	NORTHING
1	IP	498044.438	6945467.002
2	IP	498035.853	6945468.414
3	IP	498036.291	6945471.079
4	IP	498042.371	6945470.078
5	IP	498042.567	6945471.266
6	IP	498043.903	6945471.045
7	IP	498.044.879	6945469.686

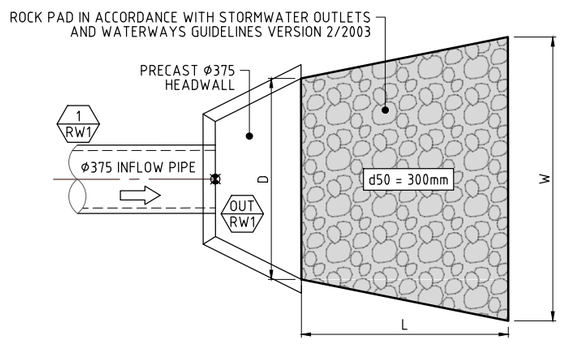


DETENTION BASIN DETAIL

NTS

ROCK SCOUR PROTECTION

PIT NO.	D	L	W
OUT/RW1	1.7m	1.5m	2.1m



SCOUR PROTECTION DETAIL

SCALE 1 : 20

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Signature ..... RPEQ No. 8068

Date of practical completion 19/08/2021

Company Title JFP Urban Consultants PTY LTD

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NORTH:

SCALE:
NOT TO SCALE
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A1
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DESIGNED	SB
DRAWN	FR
CHECKED	PH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
C	AS CONSTRUCTED ISSUE	23/08/21	SAW
B	BCC RFI RESPONSE	15/12/20	SB
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	29/09/20	FR

TITLE:

DRAINAGE - BIORETENTION DETAILS PLAN

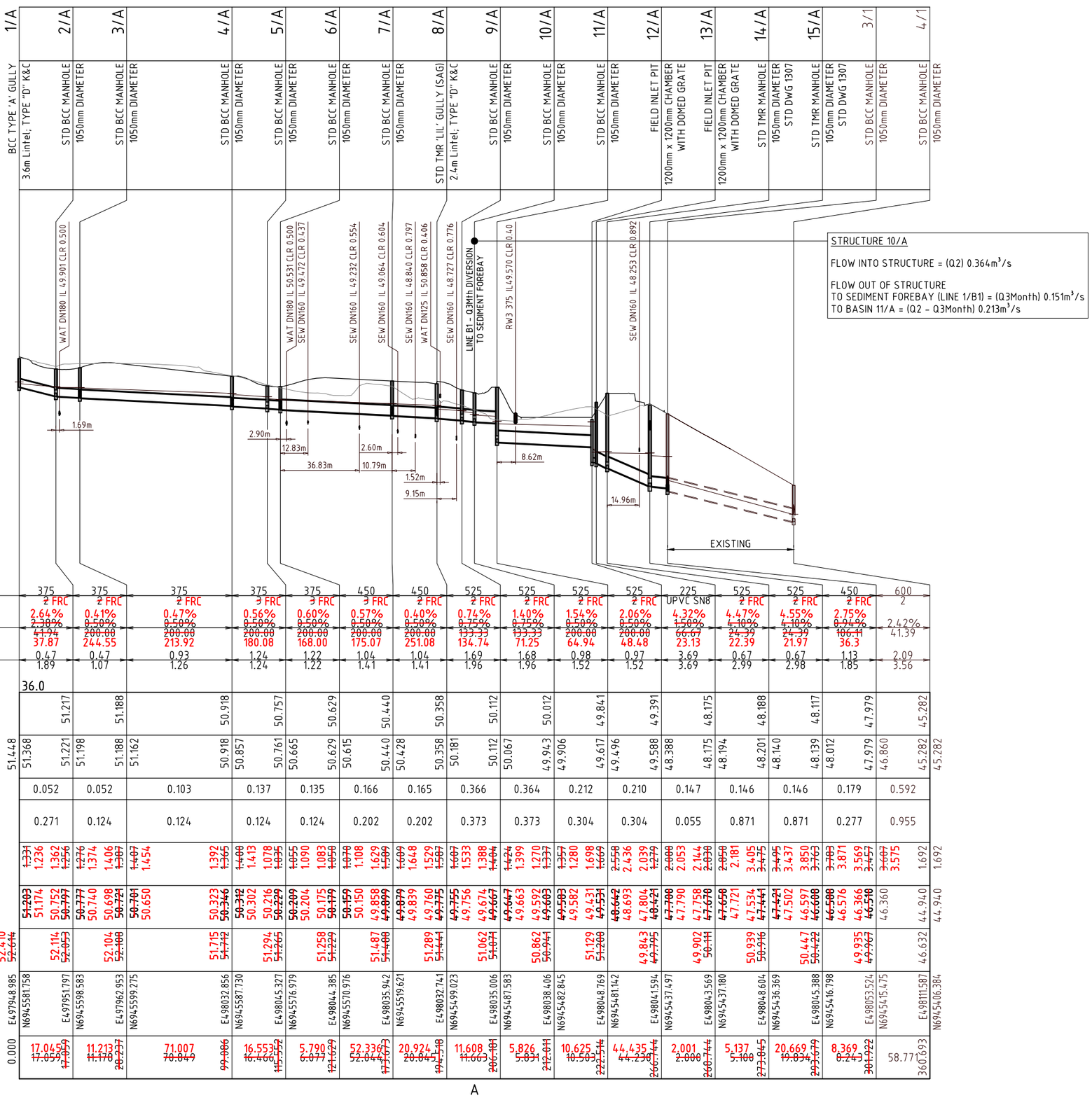
STONEHOUSE FARM PTY LTD

PROPOSED DEVELOPMENT AT
83 & 91 REDHEAD ST, DOOLANDELLA

DETAILS:
JOB NO: B3738EA2_DA1_1
PLAN: D04 ISSUE: C
BRISBANE CITY COUNCIL REF: A005317777
FILE NAME: AC_BIORETENTION.DWG

7/09/2021 N:\B3738\EA2\DA1_1\AC-CONSTRUCTED\AC_BIORETENTION

STRUCTURE NAME	
STRUCTURE DESCRIPTION	



STRUCTURE 10/A

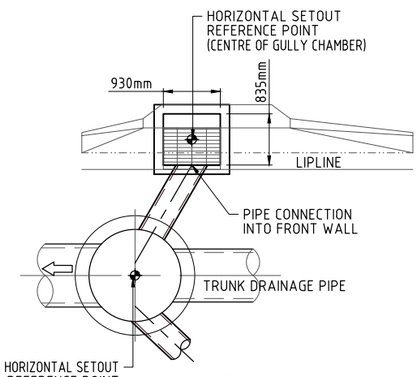
FLOW INTO STRUCTURE = (Q2) 0.364m³/s

FLOW OUT OF STRUCTURE
TO SEDIMENT FOREBAY (LINE 1/B1) = (Q3Month) 0.151m³/s
TO BASIN 11/A = (Q2 - Q3Month) 0.213m³/s

	1/A	2/A	3/A	4/A	5/A	6/A	7/A	8/A	9/A	10/A	11/A	12/A	13/A	14/A	15/A	3/1	4/1
PIPE SIZE (mm)		375	375	375	375	375	450	450	525	525	525	525	225	525	525	450	600
PIPE CLASS		2 FRC	2 FRC	2 FRC	3 FRC	3 FRC	3 FRC	2 FRC	2 FRC	2 FRC	2 FRC	2 FRC	UPVC SN8	2 FRC	2 FRC	2 FRC	2
PIPE GRADE (%)		2.64%	0.41%	0.47%	0.56%	0.60%	0.57%	0.40%	0.74%	1.40%	1.54%	2.06%	4.32%	4.47%	4.55%	2.75%	2.42%
PIPE SLOPE (1 in X)		41.94	244.55	213.92	180.08	168.00	175.07	251.08	135.33	71.25	64.94	48.48	23.13	22.39	21.97	36.3	41.39
FULL PIPE VELOCITY (m/s)		0.47	0.47	0.93	1.24	1.22	1.04	1.04	1.69	1.68	0.98	0.97	3.69	0.67	0.67	1.13	2.09
PART FULL VELOCITY (m/s)		1.89	1.07	1.26	1.24	1.22	1.41	1.41	1.96	1.96	1.52	1.52	3.69	2.99	2.98	1.85	3.56
DATUM RL	36.0																
WATER LEVEL IN STRUCTURE		51.217	51.188	50.918	50.757	50.629	50.440	50.358	50.112	50.012	49.841	49.391	48.175	48.188	48.117	47.979	45.282
HYDRAULIC GRADE LEVEL	51.448	51.368 / 51.221	51.198 / 51.188	51.162 / 50.918	50.857 / 50.761	50.665 / 50.629	50.615 / 50.440	50.428 / 50.358	50.181 / 50.112	50.067 / 49.943	49.906 / 49.617	49.496 / 49.588	48.388 / 48.175	48.194 / 48.201	48.140 / 48.139	48.012 / 47.979	46.860 / 45.282
PIPE FLOW (Cumecs)		0.052	0.052	0.103	0.137	0.135	0.166	0.165	0.366	0.364	0.212	0.210	0.147	0.146	0.146	0.179	0.592
PIPE CAPACITY AT GRADE (Cumecs)		0.271	0.124	0.124	0.124	0.124	0.202	0.202	0.373	0.373	0.304	0.304	0.055	0.871	0.871	0.277	0.955
DEPTH TO INVERT		1.331 / 1.236	1.362 / 1.256	1.392 / 1.365	1.408 / 1.413	1.055 / 1.090	1.083 / 1.050	1.078 / 1.108	1.629 / 1.509	1.609 / 1.648	1.529 / 1.587	1.607 / 1.533	1.388 / 1.404	1.424 / 1.399	1.270 / 1.337	1.357 / 1.280	1.698 / 1.669	2.558 / 2.436	2.039 / 2.079	2.000 / 2.053	2.144 / 2.030	2.050 / 2.181	3.405 / 3.475	3.495 / 3.437	3.850 / 3.763	3.703 / 3.871	3.569 / 3.457	3.607 / 3.575	1.692
INVERT LEVEL OF DRAIN		51.203 / 51.174	50.752 / 50.797	50.701 / 50.650	50.323 / 50.346	50.312 / 50.302	50.216 / 50.229	50.209 / 50.204	50.175 / 50.179	50.159 / 50.150	49.858 / 49.899	49.879 / 49.839	49.760 / 49.775	49.755 / 49.756	49.674 / 49.667	49.647 / 49.663	49.592 / 49.603	49.583 / 49.582	49.431 / 49.531	47.700 / 47.790	47.758 / 47.670	47.650 / 47.721	47.534 / 47.441	47.421 / 47.502	46.597 / 46.608	46.588 / 46.576	46.366 / 46.518	46.360	44.940	44.940
DESIGN SURFACE LEVEL	52.410 / 52.674	52.114 / 52.053	52.104 / 52.108	51.715 / 51.712	51.294 / 51.265	51.258 / 51.229	51.487 / 51.408	51.289 / 51.441	51.062 / 51.071	50.862 / 50.941	51.129 / 51.200	49.843 / 49.795	49.902 / 50.111	50.939 / 50.916	50.447 / 50.422	49.935 / 49.967	46.632												
STRUCTURE SETOUT CO-ORDINATES	E 479948.985	E 479951.758 / N 6945581.197	E 479962.953 / N 6945598.583	E 479976.275 / N 6945599.856	E 480032.856 / N 6945587.730	E 480045.327 / N 6945576.979	E 480044.385 / N 6945570.976	E 480035.942 / N 6945519.621	E 480032.741 / N 6945499.023	E 480035.006 / N 6945487.583	E 480038.406 / N 6945482.845	E 480048.769 / N 6945481.142	E 480041.594 / N 6945437.497	E 480043.569 / N 6945437.180	E 480048.604 / N 6945436.369	E 480045.388 / N 6945416.798	E 480053.524 / N 6945415.475	E 498111.587 / N 6945406.384										
RUNNING CHAINAGE	0.000	17.045 / 17.059	11.213 / 11.178	71.007 / 70.849	99.886	16.553 / 16.466	5.790 / 6.077	52.336 / 52.044	20.924 / 20.845	11.608 / 11.663	5.826 / 5.831	10.625 / 10.503	44.435 / 44.230	2.001 / 2.000	5.137 / 5.109	20.669 / 19.834	8.369 / 8.241	58.771	360.693										
		17.059	11.178	70.849	99.886	16.466	6.077	52.044	20.845	11.663	5.831	10.503	44.230	2.000	5.109	19.834	8.241	58.771	360.693										
					115.552		121.629	173.673	194.518	206.181	212.011	222.514	266.744	268.744	273.945	293.779	301.922												
LINE									A																				

REFERENCE POINT LOCATION FOR STORMWATER DRAINAGE STRUCTURES

STRUCTURE TYPE	HORIZONTAL REFERENCE LOCATION (STRUCTURE SETOUT CO-ORDINATES)	VERTICAL REFERENCE LEVEL
MANHOLE AND ROOFWATER PIT	℄ MAIN SHAFT	FINISHED SURFACE LEVEL - MANHOLE/PIT COVER
TYPE 'A' GULLY PIT, LIP IN LINE	CENTRE OF GULLY	LIP OF KERB
FIELD INLET AND ROOFWATER PIT	CENTRE OF GULLY	TOP OF GRATE OR COVER
HEADWALL	℄ OF HEADWALL (END OF OUTLET PIPE)	INVERT OF OUTLET PIPE.



CONTRACTOR IS TO ENSURE THAT PIPE CONNECTIONS TO GULLY PITS ARE NOT CONSTRUCTED INTO THE CORNER OF TWO WALLS

GULLY PIT PIPE CONNECTION DETAIL
SCALE: NTS

REFER B3738EA2_DA1_1 D13 FOR ALLOWABLE STORMWATER PIPE CONSTRUCTION EQUIPMENT LOAD TABLE

NOTE: GRATED LIDS TO BE DEPRESSED 50mm BELOW FINISHED SURFACE LEVEL

It is certified that works herein have been constructed to Local government standards, relevant approved specifications and the operational works approval. The As-Constructed Drawings for these works constitutes a true and correct record of the works constructed and complies with the design intent.

Signature ..... RPEQ No. 8068

Date of practical completion 19/08/2021

Company Title JFP Urban Consultants PTY LTD

DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step

NORTH:

SCALE:
Horizontal 1:1000
Vertical 1:100
A1
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
0 1 2 3 4 5 (A1) 1:100 10 Metres
0 10 20 30 40 50 (A1) 1:1000 100
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
☐ T.McKINNEY RPEQ 5087 ☐ A.FRASER RPEQ 5691 ☐ J.PAPPAS RPEQ 6086 ☑ S.MARSH RPEQ 8068 ☐ H.WATSON RPEQ 6200

DESIGNED	SB
DRAWN	FR
CHECKED	PH
DATUM: AHD	

ISSUE:

ISSUE:	DETAILS:	DATE:	INIT:
C	AS CONSTRUCTED ISSUE	23/08/21	SAW
B	BCC RFI RESPONSE	13/01/21	SB
A	ISSUE FOR OPERATIONAL WORKS APPROVAL	29/09/20	FR

TITLE:

DRAINAGE LONGITUDINAL SECTIONS LINE A

STONEHOUSE FARM PTY LTD

PROPOSED DEVELOPMENT AT
83 & 91 REDHEAD ST, DOOLANDELLA

DETAILS:
JOB NO: B3738EA2_DA1_1
PLAN: D05 ISSUE: C
BRISBANE CITY COUNCIL REF: A005317777
FILE NAME: AC_DRAINAGE SECTIONS.DWG

JFP URBAN CONSULTANTS
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BRISBANE
JFP House - 76 Ernest Street,
South Brisbane Qld 4101
P 07 3012 0100 W www.jfp.com.au
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PLANNERS
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SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

7/09/2021 N:\B3738\EA2\DA1_1\VS-CONSTRUCTED\XC_DRAINAGE SECTIONS

APPENDIX J

DETAILS OF EXISTING DETENTION BASIN 2

EXISTING DETENTION BASIN 2

STAGE vs AREA estimated from approved Plan No. 14376-C0380 Revision A

RL (m AHD)	Depth (m)	Estimated Area	Estimated Area	Incremental Vol.	Accum. Vol. (m^3)	Discharge (m^3/s)
48.65	0.00	207	0.0207	0.00	0	0.000
48.70	0.05	217	0.0217	10.60	11	0.000
48.80	0.15	236	0.0236	33.97	45	0.000
48.90	0.25	256	0.0256	49.20	94	0.000
49.00	0.35	277	0.0277	53.30	147	0.000
49.10	0.45	297	0.0297	57.40	204	0.000
49.20	0.55	318	0.0318	61.50	266	0.000
49.30	0.65	338	0.0338	65.60	332	0.000
49.40	0.75	360	0.0360	69.80	401	0.000
49.50	0.85	381	0.0381	74.10	475	0.000
49.60	0.95	402	0.0402	78.30	554	0.000
49.70	1.05	419	0.0419	82.10	636	0.000
49.80	1.15	436	0.0436	85.50	721	0.000

OUTLETS from approved Plan No. 14376-C0380 Revision A

	280mm ORIFICE	2x600x900 Field Inlets		
		Weir Flow	Orifice Flow	Outlet Pipe
Length (m)		1.8	1.8	62.3
Width (m)		1.2	1.2	
No. of Cells	1			1
Dia (m)	0.280			0.45
Area (m^2)	0.06	2.16	2.16	0.16
IL (m AHD)	48.65	47.25	47.25	47.25
Inflow RL (m AHD)	48.65	49.35	49.35	49.35
D/S HGL (m AHD)				
f (Fig 1.6)				
Pit Loss (K)	1.5			1.5
Perimeter (m)		6		
% Opening Clear	100%	100%	100%	

STAGE vs DISCHARGE RATING CURVE

RL (m AHD)	Depth (m)	280mm Orifice Outflow (m^3/s)	2x600x900 Field Inlet Weir Flow (m^3/s)	2x600x900 Field Inlet Orifice Flow (m^3/s)	Outlet Pipe (m^3/s)	Total Basin Discharge (m^3/s)
48.65	0.00	0.00000	0.000	0.000	0.000	0.000
48.70	0.05	0.00330	0.000	0.000	0.000	0.003
48.80	0.15	0.01978	0.000	0.000	0.000	0.020
48.90	0.25	0.04548	0.000	0.000	0.000	0.045
49.00	0.35	0.07926	0.000	0.000	0.000	0.079
49.10	0.45	0.09286	0.000	0.000	0.000	0.093
49.20	0.55	0.10537	0.000	0.000	0.000	0.105
49.30	0.65	0.11707	0.000	0.000	0.000	0.117
49.40	0.75	0.12811	0.111	1.284	0.604	0.239
49.50	0.85	0.13862	0.579	2.223	0.622	0.622
49.60	0.95	0.14868	1.245	2.870	0.639	0.639
49.70	1.05	0.15836	2.062	3.396	0.656	0.656
49.80	1.15	0.16770	3.007	3.851	0.673	0.673